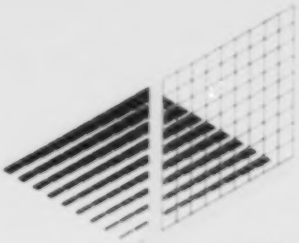

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A MID-TERM EVALUATION OF THE CANADA-NEW BRUNSWICK AGRI-FOOD DEVELOPMENT SUBSIDIARY AGREEMENT

Prepared for:

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Glossary

A-base	Funding related to the core or mainline activities of a government department.
AC	Agriculture Canada
AFA	Agri-Food Agreement (1984-1989)
ALFI	Atlantic Livestock Feed Initiative
ASA II	Second Agriculture Subsidiary Agreement (1978-1983)
CAMDI	Canada Agriculture Market Development Initiative
EDIS	AFA Electronic Database
GDA	Canada-New Brunswick General Development Agreement (1974-1984)
HRISS	Human Resources and Infrastructure Support Services
ID	Implementation Directorate
MC	Management Committee
NBDA	New Brunswick Department of Agriculture
PEMD	Program for Export Market Development
Quasi-Core Funding	Funding to hire staff or other resources to develop a project application.
ROP	Record of Production

1. INTRODUCTION

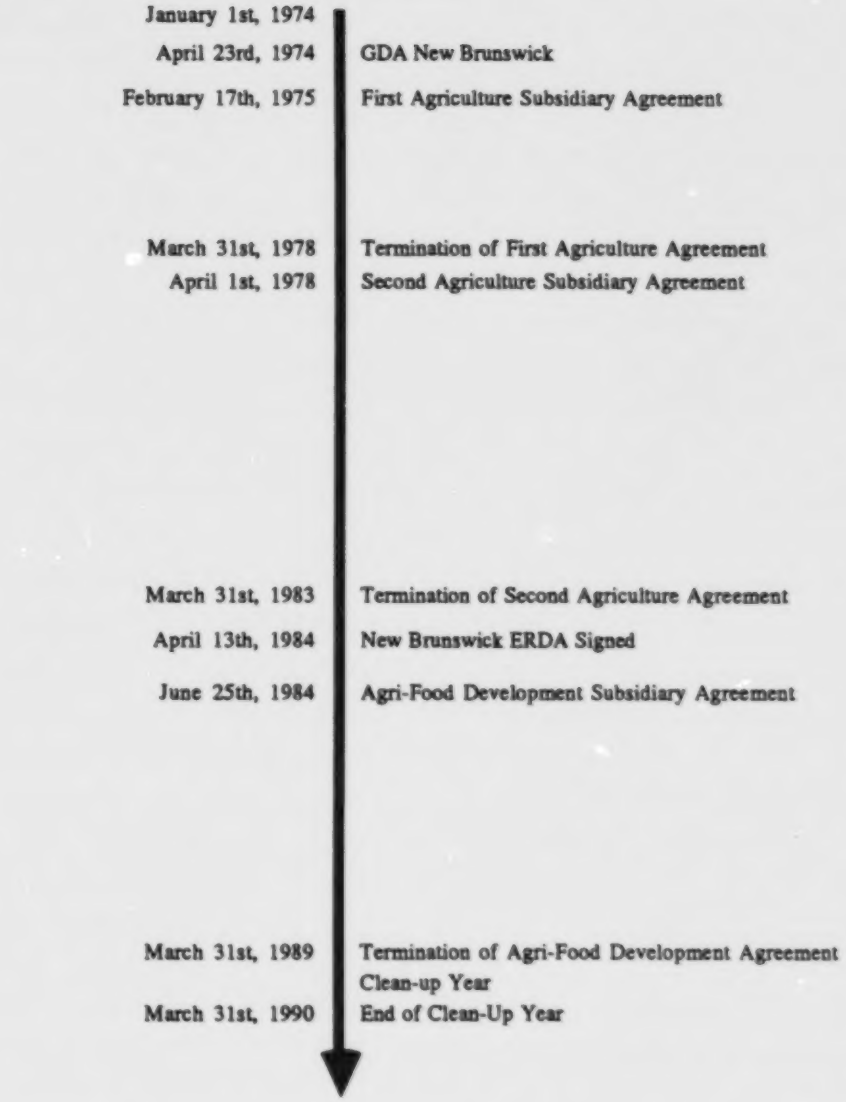
1.1 PERSPECTIVE

The agri-food sector, including primary production and directly related processing, is a major generator of income and employment in New Brunswick. Second only to forestry in the provincial economy, it accounts for approximately one in every six jobs in the goods producing industries. As of the early 1980s, wages and salaries in excess of $115 million were paid annually to the 11,000 persons directly employed. The sector exhibits strong backward linkages to other provincial industries through its purchased inputs. The sector buys more than $400 million of goods and service inputs, thereby spreading its influence to such related industries as transportation, mechanical maintenance and repair, construction, services to agriculture including veterinarians, and wholesale and retail trade across the province. The importance of the sector is further heightened by the fact that value of shipments from directly related food processing runs to roughly five times the gross farm gate value of agriculture products. A growing dynamic, primary agriculture industry provides the potential for provincial economic development well beyond the narrow bounds of the industry itself.

Consequently, recognition of resource industries such as agriculture and food by the Government of Canada and the Province of New Brunswick for their special importance as centres of economic development is not surprising. Indeed the importance of this sector has long been recognized in the province and a long-term development effort began in the mid-1970s (See Figure 1-1). Two subsidiary agreements under the Canada New-Brunswick General Development Agreement (GDA) signed in 1974 laid the ground work for the further development of the agri-food sector. An important, innovative outcome of the second of these agreements was the use of a matrix approach relating commodity targets and program goals. In effect, programs were seen as the means to relieve input constraints retarding the attainment of the commodity targets. Commodity strategies were seen as the appropriate focus for agri-food development with program activity designed to be consistent.

New approaches to further development of the agri-food industry in New Brunswick were examined by a Federal/Provincial Task Force in the early 1980s. Livestock feed, livestock, potatoes, horticultural and speciality crops sectors were identified as offering major development opportunities. If realized, these market

Figure 1-1: Time Line of New Brunswick Agri-Food Development Agreements



Prepared by Gardner Pinfold Consulting Economists Ltd.

opportunities would increase the farm gate value of production by about $50 million ($1983), a 25 percent increase over the then current levels. Productivity gains and strengthened processing would stabilize existing employment. Expanded primary production and the associated demand for inputs and processing were seen at the time to have the potential to create 300-500 new permanent jobs, plus as many as 1,800 person-years of construction employment.

Still, the New Brunswick agri-food industry faced formidable constraints on its development, productivity and profitability. These included soil erosion, soil compaction and the loss of organic matter, poor soil characteristics, inadequate soil drainage, a relatively slow rate of technology adoption and technology poorly suited to New Brunswick conditions leading to over-capitalization, the inability of small and medium size enterprises to identify and successfully penetrate markets on a continuous basis and the inappropriate use of business management practices and technical skills. Alleviating some or all of these constraints was regarded as a necessary step if New Brunswick was to attain the agri-food development goals.

To this end, the Canada-New Brunswick Agri-Food Development Agreement was drafted and signed by Canada and New Brunswick in 1984. In recognition of the development opportunities and the constraints facing the New Brunswick agri-food industry, the Agreement set as its objectives:

- to identify, develop and realize domestic and export market opportunities for selected New Brunswick grown and processed agricultural products;
- to encourage growth and development of the sector through the expansion of primary production and value-added activities for agricultural products with identified markets;
- to enhance the competitive position of the sector through improvement in productivity, product quality, human resource development, physical resource utilization and marketing;
- to increase employment in the agri-food sector and related services; and,
- to increase the level and stability of net returns for participants in the sector.

The Development Strategy devised to achieve these objectives focuses on the orderly economic development of the agri-food sector on a province-wide basis. To achieve the objectives of the Agreement, the Agreement planners determined that specific

commodity strategies were needed for the four commodity areas: livestock feed, livestock, potatoes and horticulture and specialty crops. The commodity strategies were designed to alleviate the types of constraints previously identified as they applied specifically to each commodity. To implement the chosen strategies, the Agreement is comprised of four major programs as follows:

Programs	*Estimated Cost ($'000)*
• Livestock Feed Development	14,300
• Livestock Industry	4,800
• Potato Industry Development	8,200
• Horticulture & Specialty Crop Development	4,700
Total Agreement Expenditure	32,000

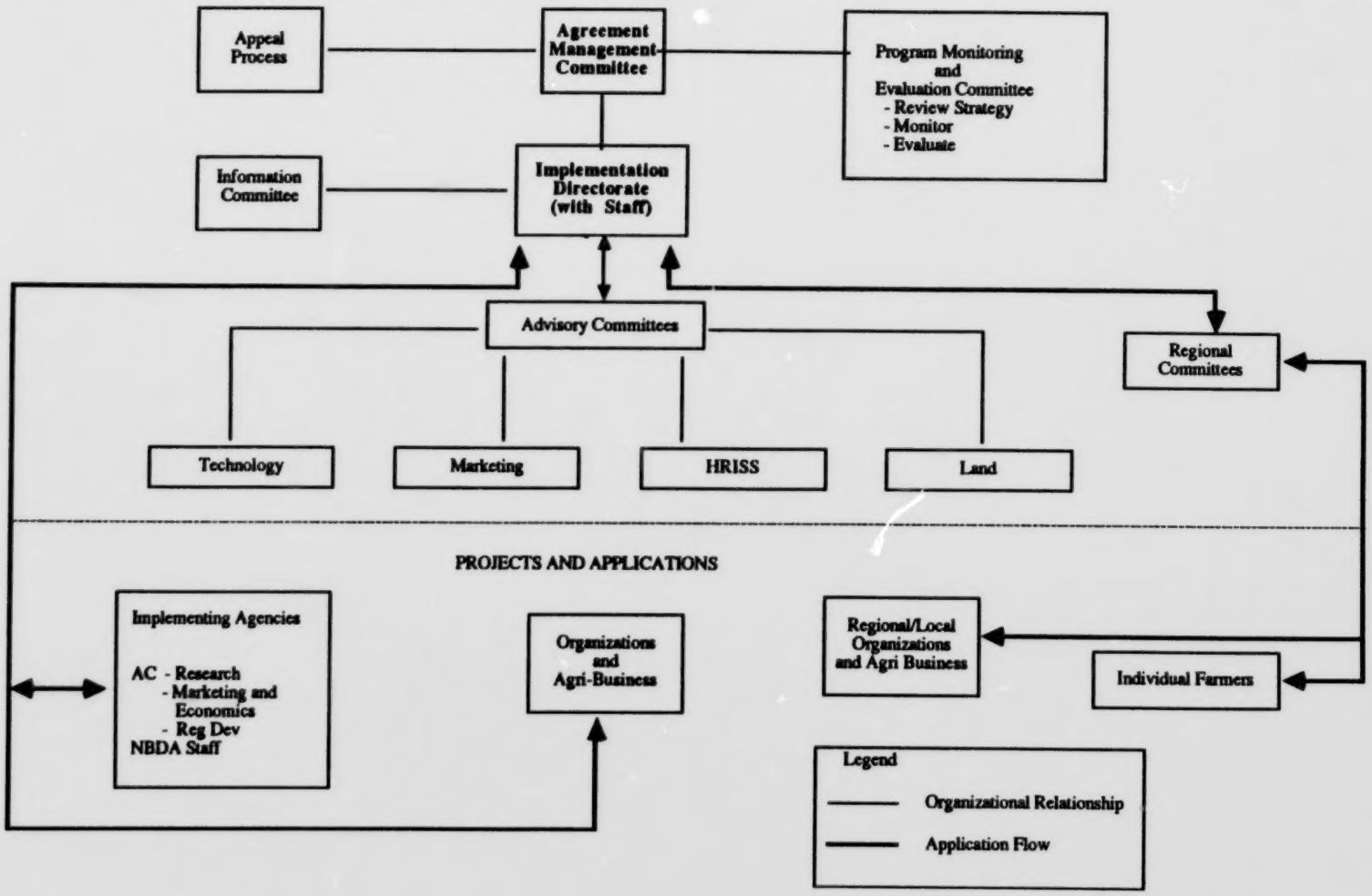
Canada and New Brunswick share in the program costs of the Agreement on a 78%/22% ratio: Canada $25 million and New Brunswick $7 million.

The four programs are delivered through a set of federal and provincial initiatives undertaken by Agriculture Canada and the New Brunswick Department of Agriculture. The management structure and the flow of applications for assistance under the Agreement are shown in Figure 1-2. The initiatives combine federal direct delivery, provincial direct delivery and cost-shared activities. The initiatives cover four main areas where significant constraints on agri-food development occur. The financial resources of the Agreement are allocated to the four initiatives as follows:

Initiatives	*Estimated Cost ($'000)*
• Land Resource Development	12,500
• Marketing	6,000
• Technology	8,500
• Human Resource Development, Industry Infrastructure and Support Services	5,000
Total Agreement Expenditure	32,000

Each initiative is implemented through a series of sub-programs which attack specific constraints affecting development of the four main commodities. The Technology Initiative is notable for the $5 million allocated to the Agriculture Canada research station

Figure 1-2
Management Structure and Application Flow
Canada-New Brunswick Agri-Food Development Agreement



for technology development specifically relevant to the development problems of New Brunswick agriculture. This is the first sub-Agreement with such a component. The relationship of the initiatives, sub-programs and commodities is summarized in Table 1-1.

Implementation of this Agreement commenced in the summer of 1984 and is due to terminate in March 1989. During its life, the Agreement calls for a mid-term evaluation of its accomplishments. As directed by the Agreement, the Management Committee has directed the Evaluation Committee to have a mid-term evaluation conducted.

1.2 STUDY OBJECTIVES

In general terms, as already noted, the purpose of this study is to fulfill the requirement of the Subsidiary Agreement for a mid-term evaluation. However, more specifically, the objective of the mid-term evaluation study is:

- to assess the progress of the Agreement towards its objectives as of March 31, 1987. Recognizing that most projects have not matured sufficiently to yield accurately measured impacts and effects, this evaluation will concentrate on management and delivery issues.

In fulfilling this objective, the study will produce a report in English and French which will have both present and future utility. Of immediate interest, the report will :

- provide a basis for recommendations on program maintenance and for amendment or modification of the programs, initiatives and sub-programs; and,
- provide public accountability as to whether the programs are or are likely to achieve success in meeting their objectives.

1.3 THE REPORT

This report presents the findings of the mid-term evaluation study. Following the general introduction in this chapter, Chapter Two outlines answers for the 15 evaluation questions dealt with in the study. The study Recommendations and Conclusions are presented in Chapter Three. The detailed results for the Client and Non-Client Surveys conducted as part of the study, as well as other detailed material, are contained in the study appendices.

Table 1-1
Programs, Initiatives and Sub-Programs of the AFA

Sub-Programs	Type of Delivery	LFD*	LID*	PID*	HSCD*
LAND					
Sub-Surface Drainage	Federal	Δ	•	Δ	Δ
Open Ditching		Δ	•	Δ	Δ
Deep Ripping		Δ	•	Δ	Δ
Land Forming		Δ	•	Δ	Δ
Land Clearing		Δ	•	Δ	Δ
Diversion Terraces & Waterways		Δ	•	Δ	Δ
Strip Cropping		Δ	•	Δ	Δ
Field Consolidation	Provincial	Δ	•	Δ	Δ
Stream Bank Protection		Δ	•	Δ	Δ
Irrigation Equipment		Δ	•	Δ	Δ
Common Main Drains	Cost-Shared	Δ	•	Δ	Δ
MARKETING					
Physical Marketing Infrastructure	Federal	Δ	Δ	Δ	Δ
Market Research	Cost-Shared	Δ	Δ	Δ	Δ
Market Development		Δ	Δ	Δ	Δ
Promotion		Δ	Δ	Δ	Δ
Market Information Systems		Δ	Δ	Δ	Δ
Market Risk	Provincial	Δ	•	Δ	Δ
TECHNOLOGY					
Technology Development		Δ	Δ	•	Δ
Technology Acceleration		Δ	Δ	Δ	Δ
Technology Demonstration		Δ	Δ	Δ	Δ
HRISS					
Infrastructure & Support Services	Federal	Δ	Δ	Δ	Δ
Information Development	Cost-Shared	Δ	Δ	Δ	Δ
Information Dissemination		Δ	Δ	Δ	Δ
Agriculture Training	Provincial	Δ	Δ	Δ	Δ

Note: Δ = Applies to this Program
• = Not Applicable

* LFP = Livestock Feed Development
LID = Livestock Industry Development
PID = Potato Industry Development
HSCD = Horticulture and Specialty Crop Development

Source: Profile of the Agri-Food Development Sub-Agreement, Excerpt from the Final Report on the Canada-New Brunswick Agri-Food Development Agreement Evaluation and Monitoring System, July, 1985.

2. THE EVALUATION QUESTIONS

2.1 METHODOLOGY

In setting out issues and questions for the mid-term evaluation of the Canada-New Brunswick Agri-Food Development Subsidiary Agreement, 1984-1989 (AFA), the terms of reference call for consistency with the principles and standards of the Office of the Comptroller-General of Canada as outlined in the *Guide on the Program Evaluation Function*. In the most general sense, our methodology follows these principles.

The specific approaches we use in addressing issues and answering questions are a mix of standard qualitative and quantitative techniques. They include interviews, reviews of files, reports and documents, manipulation of the AFA electronic database (EDIS), the client and non-client survey results, as well as tabular and graphical analysis.

The evaluation issues fall into one of four categories:

- Rationale
- Implementation
- Objectives Achievement
- Impacts and Effects

The terms of reference requires this study to focus primarily on *management* and *delivery* issues. The Evaluation Committee's choice of issues and questions reflects this general concern.

2.2 EVALUATION RESULTS

A. Rationale

Relevance

1. To what extent are the objectives and associated targets of the Agreement and its programs still relevant?

The majority of those interviewed find the objectives of the AFA still relevant but the same cannot be said for many of the targets. As for objectives, there appears to be little

question many of the problems facing New Brunswick agriculture when the *Agri-Food Development Strategy for New Brunswick 1984-1989* was formulated remain unresolved. Positive steps have been taken in that direction but it would be unrealistic to believe the problems it was intended to address could be overcome in such a short time. There continues to be considerable scope for improvements in market opportunities, production, efficiency, income stabilization and employment. This is not to say external circumstances have not changed. They have. But the impact of these changes has been on the level and type of assistance granted under the AFA, not on its general objectives.

Objectives

The Agreement originally designed to meet the constraints facing New Brunswick agriculture had an estimated cost of $70 million. The AFA signed in June 1984 called for $32 million or a 54% decrease in planned funding. Priorities had to be shifted and programs revised to meet the budget of the AFA. The objectives outlined in the strategy document were retained and a fifth objective added: To increase employment in the Agri-Food sector and related services.

The employment objective is at odds with the other objectives and thus less relevant to the extent that improvements in competitive position, primary production, and income stabilization are achieved through increases in efficiency. The latter are frequently obtained at the expense of employment creation. It appears that the employment objective is more likely to be met through increases in value-added activities such as processing. These activities are mostly outside the realm of the Agreement. However, a few AFA projects, such as the development of new horticultural crops, may contribute to employment generation.

Market development and production increases are both AFA objectives. With increased competition on world markets the need for distribution systems has become paramount. Commodity shortages are no longer the primary constraint on world agriculture. Production increases in say, potatoes and grains, are of little value without developed markets and a system to distribute the new output. For this reason it appears that the objectives of market development and production increases must be approached jointly. Uncoordinated, these objectives may not be as relevant to New Brunswick agriculture. In the view of several respondents, the link between market development and production has not received enough attention in the implementation of the AFA.

The AFA objectives owe their continuing relevance to a wording that both provides direction and flexibility. Project approval guidelines have been designed for all sub-elements of the AFA (Market Infrastructure, Technology Acceleration...) in keeping with Agreement objectives. These guidelines can be amended with Management Committee approval as long as the spirit of the objectives is preserved. Since the onset of the Agreement guidelines have been changed occasionally to better meet the needs of the Agri-Food sector (e.g., increased level of assistance for potato growers, assistance for blueberry harvesting, assistance for soil pH adjustment, etc.).

Targets

The consensus among those interviewed is that the targets in the AFA provide a direction as to which commodities to emphasize and to what degree. The question is whether those targets are "AFA" targets, as opposed to "industry-wide" targets. The answer is ambiguous. The targets discussion in the AFA document led the consultant to conclude they were Agreement targets, but the views expressed by interviewees suggests the targets were meant to be interpreted as industry targets.[1] Either way, in the consultant's view, the targets provide a direction for development but their specific quantified expression cannot be taken too seriously. There are three reasons for this.

First, target achievement and, more to the point, realistic target setting are highly dependent on market conditions. There is a tendency to assume the existence of a market for the targeted commodities. According to one respondent, a project has yet to be rejected for lack of market. Yet, the economic context for the Agreement has been one of declining and/or low commodity prices (e.g., potato, grain, beef, hog, blueberry, etc.). In addition, the agricultural sector as a whole is experiencing a farm financial crisis (which has brought about the Farm Debt Review Act and the Canadian Rural Transition program). Discussion with commodity specialists has revealed that market conditions are a major cause for the predicted failure to reach many of the 1989 targets listed in the AFA (see Table 2-1). The source of these events is external to the AFA and cannot be resolved by the AFA but whether they are indicative of future conditions or temporary is relevant to the success of the agriculture assistance programs. The surplus removal of two million cwt of potatoes in

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1 From an Agreement management viewpoint, industry targets do not allow the measurement of the direct impact of the Agreement on the agri-food sector because they are one step removed from the Agreement itself. Although useful to measure the development of New Burnswick agriculture, industry targets are only part of the total picture and must be complemented by AFA specific targets in order to measure the Agreement's effectiveness and relevance.

Table 2-1
Commodity Targets and Comparative Analysis

	Units	Original Agri-Food Strategy Targets	Targets Listed in AFA	% Change	Comparable with NB Stats	Probability of Achieving Target	Comments
Livestock Feed							
Grain	t.	93,540	85,000	-9.1%	possibly	low	Low grain prices. ALFI to help.
Forage (dry matter)	kg/ha.	6,700	6,700	no change	no	low	Try to establish alfalfa. ALFI to help.
Livestock							
Dairy	l.	135,325,000	133,325,000	-1.5%	yes	very high	Target exceeded. Production of 137 million l. expected for 1989.
Beef	kg.	9,753,000	10,000,000	2.5%	yes	high	No. of cows stable. Prices increasing.
Hogs	no.	205,000	205,000	no change	no	very low	Price collapse over 3 years. Declining production.
Sheep (lamb)	no.	82,000	82,000	no change	no	very low	Coyote problem. Farmers retiring.
Poultry - meat	kg.	14,562,830	14,500,000	-0.4%	possibly	very high	Target reached in 1986.
- eggs	doz.	10,988,000	10,900,000	-0.8%	no	low	Quota unavailability.
Potatoes							
Seed	cwt.	2,250,000	2,250,000	no change	no	low	Loss of South American Market. Only have public seeds.
Table	cwt.	2,754,250	2,700,000	-2.0%	no	low	Loss in competitiveness with PEI.
Processing	cwt.	6,000,000	5,000,000	-16.7%	no	high	Target exceeded. Absorption of unsold seed and table potatoes.
Horticulture & Specialty Crops							
Apples	bu.	400,000	400,000	no change	yes	very high	Many new plantations.
Strawberries	qt.	3,500,000	3,000,000	-14.3%	yes	medium	Sufficient production. Average 2 million picked yearly.
Blueberries	kg.	4,000,000	5,000,000	25.0%	yes	low	Maybe 4 million kg. in 1989 if prices increase.
Vegetables	yield increase	20.0%	20.0%	no change	yes	medium	More likely for new productions than established ones.
Greenhouse	prod. increase	30.0%	30.0%	no change	yes	very high	Strong market conditions.
Landscape	sales increase, $	1,560,000	1,500,000	-3.8%	no	very high	Target exceeded. Strong market conditions.

Source: Gardner Pinfold Consulting Economists Limited.

the summer of 1986 in conjunction with the continuing increase in acreage and market share of PEI potato producers are good examples of the difficulty to set realistic targets.

Second, target increases set in the *strategy* have been put into the AFA essentially untouched. Where reductions occurred they were much less than the 54 percent reduction in funding that took place between the *strategy* and the signing of the AFA (Table 2-1). If there was a close relationship between the funding and the initial targets, then the targets appear overly optimistic.

Third, for simple practical reasons, one would expect commodity targets to be comparable to available statistical data. Of the 14 targets listed in Table 2-1, only four relate directly to the *New Brunswick Agricultural Statistics* published by NBDA (i.e., the 1983 AFA figures match or closely approximate the above statistics in terms of both types of measurement and specific quantities). These statistics, based on Statistics Canada data, are generally available and the main source of information on commodity status along with the publications and data available from the various marketing Boards.

Conclusion

The objectives of the Agreement appear to be relevant except for the employment objective which may be at odds with the stress on increasing efficiency present in the other objectives.

The AFA targets provide a sense of direction and an indication of emphasis for commodity development but the quantified expressions of these targets is not relevant because market conditions have changed and the targets were designed for an Agreement with more than double the resources of the current AFA.

Linkages/Consistency

2. *Are the goals, activities, and outputs of the programs and projects consistent with the Agreement objective(s) and resources?*

Consistency in this case is interpreted to refer to what is logically required and financially feasible to meet the Agreement objectives given the resources available.

Project guidelines constitute the working documents used for approval. Although the objectives of the Agreement themselves are only occasionally referred to, for most people the guidelines serve as the operational expression of the objectives. Project applications are subject to scrutiny under these guidelines. By extension, projects

approved under the guidelines are expected to be consistent with Agreement objectives. The consultant's examination of the guidelines found them in agreement with AFA objectives, although none mentioned increased employment as an objective. The Agri-Food Strategy document is also used during the project approval process.

In the *strategy* $3 million had been allocated to program implementation. In the AFA these funds must be taken from each program. This makes it difficult to see whether resources are consistent with the objectives.

Two tests of consistency can be applied here. First, if programs and projects have already reached their funding ceiling it may appear that insufficient resources were allocated for the activity in question. The economic down-turn experienced by New Brunswick producers in the last few years has resulted in much project slippage.[1] Spending levels to date have been lower than planned. Only minimal funding constraints have been in effect on projects and programs. Thus, on this account, there is no evidence of inconsistencies. Second, if program or initiative spending deviated from the budget, this could indicate some inconsistency between resources allocated and objectives achievement. As seen in Table 2-2, in percentage terms total project expenditures to date are very close in proportion to the AFA budgeted expenditures by program. Minor differences (less than two percent) are found in all programs. Among initiatives, Table 2-3 shows that while spending for technology was six percent over the budgeted allocation, land projects used up five percent less funds than budgeted. This imbalance dates from the first year of the Agreement where 42 percent of expenditures were on technology. Considering that some deviations are bound to occur and the errors detected in this analysis are quite small, there is no evidence of inconsistency.

While the Agreement provides the necessary funding to execute programming and develop agriculture in the province, the consistency of program implementation staff with workload may be an issue. Many of the people involved directly with the implementation of the Agreement have additional functions to fulfill (with the exception of four Regional Development Officers hired under the AFA. They work only with Agreement programs and provide a first-hand view of what works, what does not work and how to make

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1 Project slippage refers to the phenomenon where a farmer commits to engage in a project in a given year and then fails to follow through. Significant slippage can result in a large volume of AFA funds committed but not spent at the end of a fiscal year. AFA officials estimate slippage rates on land projects during 1984/85, 1985/86 and 1986/87 to be 60, 55 and 53 percent, respectively.

Table 2-2
AFA Project Expenditures, Program by Initiative

	1984/85		1985/86		1986/87		Total		AFA Budget All Years	
	($'000)	%	($'000)	%	($'000)	%	($'000)	%	($'000)	%
Livestock Feed Development										
Land	239	19.1%	1,008	20.7%	1,083	16.4%	2,330	18.3%	6,500	20.3%
Marketing	144	11.5%	399	8.2%	425	6.4%	968	7.6%	2,700	8.4%
Technology	297	23.7%	767	15.7%	1,163	17.6%	2,227	17.5%	3,500	10.9%
HRISS	37	3.0%	128	2.6%	151	2.3%	316	2.5%	1,600	5.0%
Total	716	57.2%	2,303	47.3%	2,822	42.8%	5,841	45.9%	14,300	44.7%
Livestock Industry Development										
Land	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Marketing	2	0.1%	151	3.1%	143	2.2%	295	2.3%	900	2.8%
Technology	133	10.6%	304	6.2%	528	8.0%	965	7.6%	2,600	8.1%
HRISS	40	3.2%	157	3.2%	304	4.6%	501	3.9%	1,300	4.1%
Total	174	13.9%	612	12.6%	974	14.8%	1,761	13.8%	4,800	15.0%
Potato Industry Development										
Land	160	12.8%	606	12.4%	646	9.8%	1,412	11.1%	4,500	14.1%
Marketing	15	1.2%	243	5.0%	318	4.8%	575	4.5%	1,400	4.4%
Technology	55	4.4%	182	3.7%	199	3.0%	436	3.4%	1,000	3.1%
HRISS	36	2.9%	280	5.8%	433	6.6%	749	5.9%	1,300	4.1%
Total	265	21.2%	1,311	26.9%	1,595	24.2%	3,171	24.9%	8,200	25.6%
Horticulture Development										
Land	16	1.3%	222	4.6%	310	4.7%	549	4.3%	1,500	4.7%
Marketing	14	1.1%	174	3.6%	263	4.0%	451	3.5%	1,000	3.1%
Technology	37	3.0%	155	3.2%	440	6.7%	632	5.0%	1,400	4.4%
HRISS	29	2.3%	95	2.0%	194	2.9%	319	2.5%	800	2.5%
Total	96	7.7%	646	13.3%	1,207	18.3%	1,950	15.3%	4,700	14.7%
Total	1,252	100.0%	4,872	100.0%	6,599	100.0%	12,723	100.0%	32,000	100.0%

Source: AFA Annual Reports.

Table 2-3
AFA Project Expenditures, Initiative by Program

	1984/85		1985/86		1986/87		Total		AFA Budget All Years	
	($'000)	%	($'000)	%	($'000)	%	($'000)	%	($'000)	%
Land Resource Development										
Livestock Feed Dev.	239	19.1%	1,008	20.7%	1,083	16.4%	2,330	18.3%	6,500	20.0%
Livestock Industry Dev.	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Potato Industry Dev.	160	12.8%	606	12.4%	646	9.8%	1,412	11.1%	4,500	14.0%
Horticulture Development	16	1.3%	222	4.6%	310	4.7%	549	4.3%	1,500	5.0%
Total	415	33.2%	1,836	37.7%	2,039	30.9%	4,290	33.7%	12,500	39.0%
Marketing										
Livestock Feed Dev.	144	11.5%	399	8.2%	425	6.4%	968	7.6%	2,700	8.0%
Livestock Industry Dev.	2	0.1%	151	3.1%	143	2.2%	295	2.3%	900	3.0%
Potato Industry Dev.	15	1.2%	243	5.0%	318	4.8%	575	4.5%	1,400	4.0%
Horticulture Development	14	1.1%	174	3.6%	263	4.0%	451	3.5%	1,000	3.0%
Total	174	13.9%	967	19.8%	1,148	17.4%	2,288	18.0%	6,000	19.0%
Technology Transfer										
Livestock Feed Dev.	297	23.7%	767	15.7%	1,163	17.6%	2,227	17.5%	3,500	11.0%
Livestock Industry Dev.	133	10.6%	304	6.2%	528	8.0%	965	7.6%	2,000	8.0%
Potato Industry Dev.	55	4.4%	182	3.7%	199	3.0%	436	3.4%	1,000	3.0%
Horticulture Development	37	3.0%	155	3.2%	440	6.7%	632	5.0%	1,400	4.0%
Total	521	41.6%	1,408	28.9%	2,330	35.3%	4,260	33.5%	8,500	27.0%
HRISS										
Livestock Feed Dev.	37	3.0%	128	2.6%	151	2.3%	316	2.5%	1,600	5.0%
Livestock Industry Dev.	40	3.2%	157	3.2%	304	4.6%	501	3.9%	1,300	4.0%
Potato Industry Dev.	36	2.9%	280	5.8%	433	6.6%	749	5.9%	1,300	4.0%
Horticulture Development	29	2.3%	95	2.0%	194	2.9%	319	2.5%	800	3.0%
Total	142	11.4%	661	13.6%	1,081	16.4%	1,884	14.8%	5,000	16.0%
Total	1,252	100.0%	4,872	100.0%	6,599	100.0%	12,723	100.0%	32,000	100.0%

Source: AFA Annual Reports.

programs better). Ordinarily, non-Agreement functions would be enough to constitute a full-time job. As a result, key actors have extremely heavy workloads and must set work priorities as best as they can. Many project collaborators, for example, have additional duties as agriculture professionals for their region. Some respondents expressed the view that under these circumstances, the quality of project evaluation reports written by collaborators has failed to achieve a uniformly high standard. In addition, a choice is made between the fulfillment of accountability requirements under the Agreement and the development of innovative projects meeting the needs of New Brunswick agriculture. In fact, both of these functions are important to the implementation of the Agreement. From an implementation and administration point of view, things seem to be handled well. What is missing, it appears, is the resources to develop innovative approaches and carry out monitoring in an effective way (see Question 10). In spite of this, as the survey results indicate, client farmers are satisfied with the work carried out under the AFA.

Conclusion

Activities and outputs appear to be consistent with Agreement objectives and resources. It is not possible to judge in more than a superficial manner whether outputs are consistent with Agreement objectives and resources given the lack of detailed evaluation reports. There appears to be an inconsistency in the allocation of staffing resources for Agreement implementation. Had there been a greater response rate and less slippage this inconsistency would have been greatly exacerbated.

B. Implementation

Funding Levels

3. Are the funds used most effectively to achieve the intended objectives?

Cost-Effectiveness

There is no indication as to whether funds are being used cost-effectively. No formal test of cost-effectiveness is given to projects before assistance is granted and there is no follow-up of whether the same results could have been achieved at a lower cost. For some routine low costs projects such as marketing infrastructure this is not a concern. Riskier and more expensive projects with potential wide ranging impacts such as some technology projects, however, might benefit from such an analysis. As one respondent put it, the problem is lack of time to conduct a detailed evaluation of a project prior to approval such as cost-effectiveness or cost-benefit analysis. In addition, no alternatives are

submitted that would facilitate such analyses. It must be noted, however, that an informal process is used involving the application of expert-opinion, common-sense and informal benefit-cost assessm[illegible].

Project slippage, it is felt, has brought about increasing over-commitment of funds from year to year to ensure that actual spending meets the AFA budget. This occurs because unspent federal AFA funds in a given fiscal year revert to Ottawa. Reprofiling of these funds to future years for Agreement activities is possible but not guaranteed. Under these circumstances, generating a large volume of approved projects may take precedence over selecting the most cost-effective set of projects.

Administrative Issues

Many of the people interviewed felt that too much time is spent on administration. The paperwork involved was the subject of much criticism and was seen as an impediment to cost-effectiveness. This paperwork is reviewed in question 8 in terms of information content and actual volume. The need for accountability justifies much of the information requested. Whether all of the information is needed and used could be examined. A streamlining of the forms to reduce the amount of paper handled could then be undertaken. To provincial interviewees, the joint delivery process in use is perceived as creating delays and inefficiencies and increasing Agreement costs. The consensus among these respondents was that cost-shared delivery as done under ASA II was more efficient.

Assistance Rates

Funds are used most effectively if project assistance rates are set neither too high nor too low to attract the maximum number of projects under the Agreement. By comparing the rate of uptake of a particular project with what was expected we can establish whether the level of assistance was at least appropriate in that it was the minimum necessary to induce participation. Few respondents had firm expectations regarding participation rates but they felt in general that response had been good, not taking into account slippage by farmers.

Nobody expressed the opinion that assistance rates in general are too high and should be lowered. However, the following views on assistance rates were offered by Regional Development Officers and Advisory Committee members:

- Some companies have marked-up equipment prices by up to 50 percent because they know that farmers receive assistance (e.g., rotary mowers).
- When silo assistance was 25 percent, they still got built.
- Higher assistance rates may result in lower work quality.
- Contribution to project costs [by the project proponent] is important to maintain interest in the project. (In other words, a 100 percent assistance rate was not favoured by the interviewee.)

Major adjustments to assistance rates would indicate that participation is not considered adequate. With the exception of Marketing Infrastructure, assistance rates have remained largely unchanged since the beginning of the AFA. However, some changes in what constitutes eligible costs have been made such as an increase in the range of eligible costs for blueberry fields; inclusion of cost of seeding, winter cover crops, pH program, custom services; increase in the maximum contribution for irrigation from $15,000 to $17,500, etc. These changes appear to reflect the flexible approach used for implementation and a fine-tuning of project assistance. The minor nature of these changes appears to confirm respondent views that participation has been adequate.

Conclusion

Cost-effectiveness is not evaluated formally during project approval and under conditions of project slippage there is a risk that a less cost-effective set of projects be selected. The heavy paperwork is regarded as an impediment to effective administration for achieving the intended objectives. Accountability needs must be re-assessed for possible streamlining of application and approval forms. The available evidence suggests the assistance rates are effective in attracting a high volume of projects directed at the AFA objectives. Assistance to accelerated technology projects could be reduced with time as the technology becomes better known and is less risky.

Decision-Making

4. *Do timely and appropriate mechanisms and organizational structures currently exist for effecting resource allocation and reallocation decisions?*

An answer to this question must be considered within the context of the *Program* and *Initiative* structure of the AFA as outlined in Schedules A and C of the Agreement.

Programs

Schedule A (reproduced in Appendix A) allocates the total AFA resources ($32 million) across four commodity based programs: Livestock Feed Development ($14.3 million, 44.7%), Livestock Industry Development ($4.8 million, 15%), Potato Industry Development ($8.2 million, 25.6%) and Horticulture and Specialty Crop Development ($4.7 million, 14.6%).

Initiatives

The initiatives provide a further resource allocation criteria based on four farm inputs: Land ($12.5 million, 39%), Marketing ($6.0 million, 18.8%), Technology ($8.5 million, 26.6%) and Human Resource Development, Industry Infrastructure and Support Services (HRISS) ($5.0 million, 15.6%). The resources allocated to each initiative are further disaggregated by commodity program as shown in Table C-2, Appendix A.

Allocation/Reallocation

Decisions for *Programs* and *Initiatives* must be considered separately. Changes in the *Program* funding allocation set out in Schedule A require a recommendation from the Management Committee to the respective Ministers for a course of action to be taken. According to those interviewed, although no such major program changes have occurred, if desired, they also require the review and approval by the federal treasury boards and the provincial board of management. The estimated time required to effect program reallocations at the federal level is six to eight months. Even for some minor changes, considerable time can elapse. For example, to change the client maximum assistance rates from $25,000 for Land projects to a $50,000 maximum assistance for all projects under the AFA required federal treasury board approval and took eight months to complete. Thus, while a mechanism exists to effect resource allocation/reallocation, it is a relatively slow process and would not likely be able to respond quickly to a need for reallocation should one arise.

More generally, any proposed change in the program funding allocation may be regarded as a reprofiling of the AFA by the federal treasury board. In this era of tight federal resources, the treasury board would want to reconsider the use of the AFA funds on a government wide basis to ensure the best use of scarce resources nationally. The results

of such a process are of course unpredictable, even when a strong case can be made for the proposed reprofiling. One can easily understand any reluctance on the part of AFA officials to initiate any reallocation/reprofiling request. Thus, even setting aside its evident slowness, the consultant observed little inclination to use the existing reallocation mechanism at the program level. Thus, while a mechanism exists, it is generally ineffective. Permitting reallocation through Ministerial approach based on Management Committee recommendations is regarded as preferable by AFA officials.

By contrast, the reallocation mechanism at the *Initiative* level works well according to those AFA officials interviewed. The Agreement explicitly directs the Management Committee to "transfer funds between initiatives as arrayed in Table C-2 of Schedule C." According to those interviewed, reallocating resources between initiatives can and does work, so long as the funding allocation by program is not altered. So, for example, the $14.3 million directed to Livestock Feed Development can be allocated/reallocated among the four initiatives according to Management Committee directions.

This is not without its complications however. The federal portion of each initiative-program allocation (e.g. the $6.5 million for Land for Livestock Feed Development) is further disaggregated in terms of Wages, Salaries and Operations (Vote 5), Capital (Vote 10) and Grants and Contributions (Vote 15). Balancing all of these items for any resource reallocation can be time consuming, while adding very little, if anything, to the overall effectiveness of AFA implementation.

A final point concerns the ability of the current mechanisms to deal with possible overspending and underspending in a given year. To date the issue has been underspending caused by project slippage. The federal treasury board view has been that unspent funds are lost to the Agreement. To avoid this situation, Agriculture Canada has implemented a system whereby all Agri-Food Development Subsidiary Agreements across Canada are regarded as part of a single development pool. Borrowing and lending across Agreements is permitted to cover overspending and underspending across provinces. Under this scheme, it is possible, for example, for the AFA to overcommit funds for project assistance on the assumption of certain rate of project slippage. If project slippage is less than anticipated, the shortfall in funding can be covered through the borrowing mechanism on the expectation of repayment from a future year's allocation. In this way, the AFA is better able to meet its spending targets in spite of the uncertainties associated

with the rate of project slippage and Agriculture Canada makes the fullest use of the available agriculture development funds.

Conclusion

At the *Program* level, a mechanism and organization structure for allocation/reallocation decisions exists but it involves a relatively slow decision making process. Furthermore, using the mechanism is risky because doing so opens the possibility of AFA funds being reallocated to other government programs. Permitting reallocation at the program level with Ministerial approval based on a recommendation by the Management Committee would provide greater flexibility in adapting to changing agriculture needs. At the *Initiative* level, reallocation between initiatives within a program is carried out by the Management Committee and appears to work well. The provision of an explicit allocation for administration separate from the program-initiative allocation for projects would simplify the reallocation process.

Participation

5. Are the commodity groups/business units responding to the stimuli of the programs of the Agreement?

Respondents felt that participation is steadily increasing as groups learn more how they can use the Agreement. Over the first two years of the AFA meetings were held with each association to explain the Agreement and how it can be used. So far, about 26 percent of AFA grants and contributions on marketing projects and about 11 percent of HRISS project expenditures have been made by farm organizations and business units[2] (see Tables 2-4 and 2-5). The hogs, poultry and horticulture associations and a meat processor have used the AFA for promotion and an egg producer used Agreement assistance for storage and grading.

In fact, though, the NBDA was the major user of marketing and HRISS funds. Sixty-seven percent of the assistance granted to NBDA under the Marketing Initiative went to promotion projects thus complementing the work carried out by most commodity groups. Under HRISS, 43 percent of the assistance granted to NBDA was used for information studies and training. Tables 2-6 and 2-7 provide a breakdown of the types of projects carried out by NBDA. The impacts and effects of NBDA work are of a long-term

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2 The term "business units" includes business groups, educational institutions, service firms and manufacturing firms.

Table 2-4
Marketing Projects by Client Type by Year

	1984/85		1985/86		1986/87		Total	
	#	($'000)	#	($'000)	#	($'000)	($'000)	%
Application made by:								
NBDA and/or AC	5	25	41	392	48	485	903	43.5%
Farmers	1	3	75	330	98	306	639	30.8%
Farm Organization	3	16	10	77	12	124	217	10.5%
Business Group	0	0	2	77	2	9	86	4.2%
Service Firm	0	0	0	0	1	49	49	2.4%
Manufacturing Firm	1	135	1	15	2	29	179	8.6%
Total	10	180	129	891	163	1,003	2,073	100.0%

Source: AFA, EDIS, Special Compilation, June,1987.

Table 2-5
HRISS Projects by Client Type by Year

	1984/85		1985/86		1986/87		Total	
	#	($'000)	#	($'000)	#	($'000)	($'000)	%
Application made by:								
NBDA and/or AC	17	101	54	328	91	554	983	86.7%
Farmers	0	0	3	1	7	23	24	2.1%
Farm Organization	0	0	9	9	11	49	58	5.1%
Business Group	0	0	0	0	4	8	8	0.7%
Education Institution	0	0	1	10	2	51	61	5.4%
Service Firm	0	0	0	0	0	0	0	0.0%
Manufacturing Firm	0	0	0	0	0	0	0	0.0%
Total	17	101	67	348	115	685	1,134	100.0%

Source: AFA, EDIS, Special Compilation, June,1987.

Table 2-6
Marketing Projects carried out by NBDA(1) by Functional Category
1984/85 - 1986/87

	Projects (1)		Grants & Contributions		G & C per
	#	%	($'000)	%	Project ($'000)
Structures	0	0.0%	0	0.0%	0.0
Equipment	3	10.7%	12	2.6%	4.0
Promotion	8	28.6%	303	67.2%	37.8
Travel	7	25.0%	82	18.2%	11.7
Information	5	17.9%	28	6.2%	5.6
Test Market	2	7.1%	20	4.5%	10.2
Other	3	10.7%	5	1.2%	1.8
Research	0	0.0%	0	0.0%	0.0
Total	28	100.0%	450	100.0%	16.1

Note: (1) Agriculture Canada also carried out one project in Travel valued at $3,226.
(2) Covers only those projects reporting actual expenditure.

Source: AFA, EDIS, Report #15, Menu #3, April 29,1987

Table 2-7
HRISS Projects carried out by NBDA by Functional Category
1984/85 - 1986/87

	Projects		Grants & Contributions		G & C per
	#	%	($'000)	%	Project ($'000)
Seminars, courses, workshops:					
1. Production	27	31.0%	45	10.1%	1.7
2. Marketing	1	1.1%	4	0.9%	4.1
Fact Finding (Travel)	20	23.0%	27	5.9%	1.3
Information studies (training)	16	18.4%	194	42.9%	12.1
Core funding (org. dev.)	2	2.3%	26	5.7%	12.9
Equipment	3	3.4%	19	4.1%	6.2
Other	5	5.7%	12	2.7%	2.4
Resource centers	8	9.2%	64	14.2%	8.0
Info. dissimation (pamphlets, etc.)	5	5.7%	61	13.5%	12.2
Total	87	100.0%	452	100.0%	5.2

Note: Covers only those projects reporting actual expenditure.

Source: AFA, EDIS, Report #15, Menu #3, April 29,1987

nature. A project-by-project review would allow conclusions to be made as to their benefits to the New Brunswick agro-industry.

In terms of actual participation, the most important factor identified by Agreement officials was the degree of organization of the various groups and units. Smaller and poorer groups apparently are disadvantaged relative to bigger and well-organized groups. The latter can raise the necessary funding to pay for the groups' share of AFA assisted projects.

Groups and units still at the developmental stage and with small membership are at a disadvantage under the AFA. Assistance is granted on a project specific basis and core funding is not an eligible expense. Staff will be covered as a project component only. Early in the life of the AFA, nine applications under HRISS were rejected as "not eligible", suggesting that the requests had been for core funding and were rejected on that basis. Four of these groups have never filed another application under any AFA program/initiative.[3] It is possible that these groups do not have the resources required to put forward project specific applications (even though NBDA departmental staff will assist groups in applying for specific projects) and even less resources to administer and implement those projects.[4] Although some organizations have received assistance which is close to core-funding de facto, the possibility remains that response to the stimuli of the Agreement will continue to be less than desirable under the current eligibility criteria.

Economic conditions have affected participation from commodity groups. For many groups, small and large, approved funds were never spent. For instance, much assistance has been approved for the Potato Agency. Not all of it has been used because the Agency has been unable to raise the required funds given low potato prices and the Agency's internal administrative problems. On the other hand, the Milk Marketing Board with a more economically stable membership, which has allowed them to develop a strong organizational and administrative capability, has made strong use of assistance for human resources and marketing projects.

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3 The groups are the Bay Chaleur Co-op, the N.B. Holstein Association, the N.B. Fur and Feather Association and the N.B. Fair Judges Association.

4 Even though this is the general situation, it must be noted that during the AFA, the Fédération des Agriculteurs et Agricultrices was formed and has received funding on a project specific basis.

Rates and levels of assistance available for HRISS are generally in the order of 50 percent for profit-making organizations. Except for marketing research, which offers up to 15 percent more to commodity groups than to individuals, there is no difference in assistance rates among clients with marketing projects. In spite of these rates, there are very few applications from business groups, manufacturing and service firms. They accounted for nine marketing projects (15 percent of marketing expenditures) and seven HRISS projects (6 percent of HRISS expenditures) since the beginning of the Agreement. These figures include a single $135 thousand marketing project to a manufacturing firm.

Conclusion

In conclusion, the actual participation rate of commodity groups started low but has increased. Agreement officials feel commodity groups are responding to the stimuli of the AFA. For smaller and less organized groups, the "project-specific" eligibility criteria has retarded and will continue to retard their participation in AFA projects. Business units have so far shown a modest inclination to use the Agreement.

6. *Are the seven (7) regional strategies effective in influencing program activities?*

The regional strategies were established to:

- assess the regions' resource potentials;
- determine the constraints and opportunities for further development in the regions; and
- increase regional input on AFA programs and activities.

These strategies were initiated with the AFA but are not limited to AFA target commodities and constraints. They vary from region to region in terms of format, the way and by whom they were put together, the importance they are given as an exercise and the consequent faith in their role in influencing program activities.[5] To paraphrase one respondent, the regional strategies often read like a compendium of possible expenditures, a shopping list of items desirable for a region's agricultural development.

Most regions believe the regional strategies process is ineffectual in influencing AFA implementation, but the strategies are still valued for the reference, planning exercise

5 It should be noted that Agriculture Canada has a commodity strategy process and that NBDA has established commodity planning standing committees. While these are not themselves regional strategies, they do have regional implications.

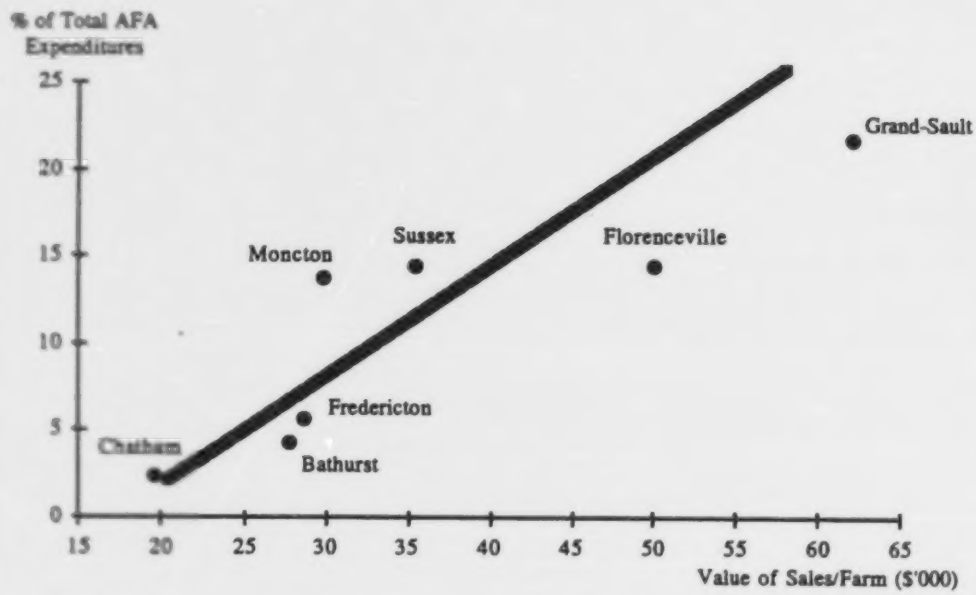
and internal source of discussion they provide. The low level of influence attributed to the regional strategies stems from the fact that the Agreement is essentially a provincial development tool. Programs are open to all regions but do not match all of a region's needs and potentials exactly.

Regional strategies and priorities have not been totally ignored in the implementation of the AFA. New activities such as the assistance for lime application and special consideration for blueberry growers arose from the regional requests. This past year, an attempt has also been made at the ID level to use the information contained in the regional strategies for budgeting and resource allocation. Whether the strategies or routine lobbying by the regions were the causes of these changes, however, cannot be assessed here. It appears, nevertheless, that the regional strategies have gradually contributed to the ID committee's increasing awareness of a region's problems.

As a side issue related to the regional strategy process, it is worth noting that while the regions have equal access to assistance, the dispersement of AFA project assistance funds among the regions is not equal. Project approval is partly based on the viability of the project which brings in as a necessary (but not sufficient) criteria the viability of the farm enterprise. As a result, as shown in Figure 2-1, wealthier regions as measured by the average value of sales per farm receive a greater share of AFA grants and contributions. For example, Grand-Sault with nine percent of New Brunswick farms but average sales per farm over $60 thousand received 21.6 percent of AFA expenditures while Bathurst with eight percent of New Brunswick farms but registering sales of approximately $28 thousand per farm received about 4.2 percent of total Agreement expenditures. The relationship shown in Figure 2-1 is in part explained by the fact that small and part-time farmers are less likely to receive AFA assistance, a group which makes up a large proportion of all farmers in regions such as Bathurst. As an alternative, a relationship similar to Figure 2-1 is also depicted in Figure 2-2 in terms of total value of sales per region. A comparison of both figures indicates that average value of sales is a better predictor of assistance received than a region's aggregate sales value. Table 2-8 provides a breakdown of AFA expenditures, farm sales and number of farms on a county basis.

Clearly, the Agreement's main objective relates to New Brunswick's agri-food sector as a whole. Consequently, assistance is available to all regions equally. The type of assistance available is directed at those sectors most promising in term of growth as indicated by the AFA programs. Therefore, regions with the highest growth potential are

Figure 2-1: AFA Expenditures and Value of Sales per Farm by Region

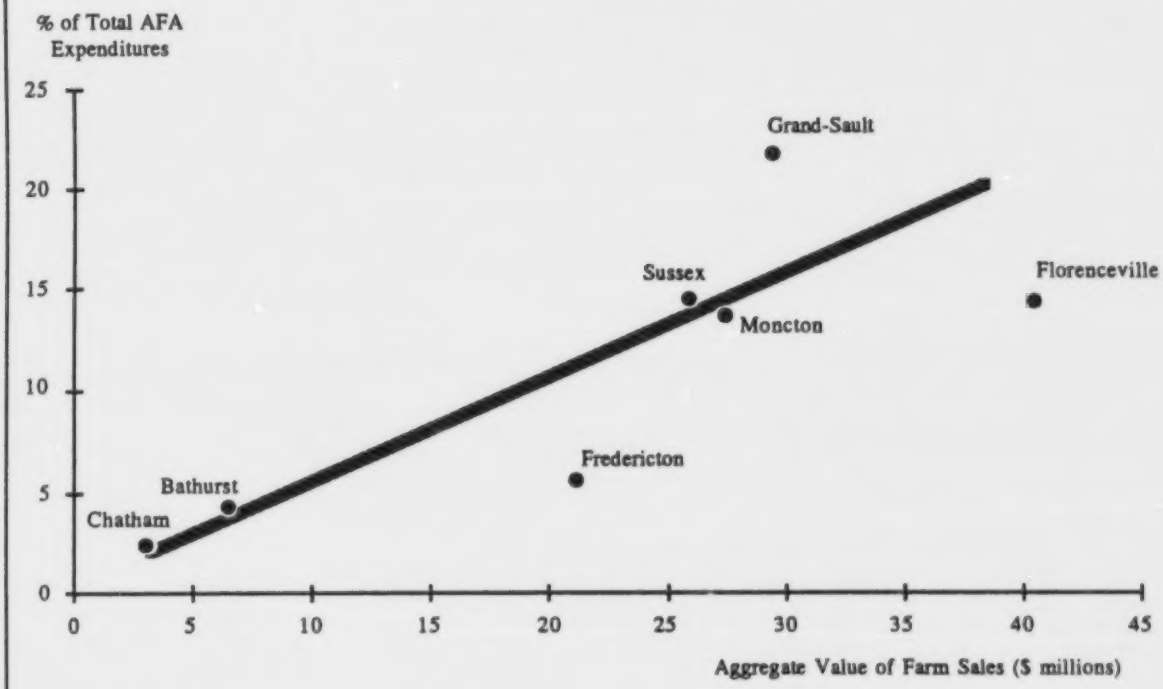


Note: Regional value of sales per farm computed from county statistics. Counties spanning more than one region, sales and farms were distributed equally between them.

Source: AFA Administration; 1981 Census.

Prepared by Gardner Pinfold Consulting Economists Limited.

Figure 2-2: AFA Expenditures and Aggregate Volume of Sales by Region



Note: Regional value of sales computed from county statistics. For counties spanning more than one region, county sales were distributed equally between them.

Source: AFA Administration; 1981 Census.

Prepared by Gardner Pinfold Consulting Economists Limited.

Table 2-8
AFA Expenditures(1), Value of Farm Sales and Number of Farms(2) by County

	AFA Expenditure		Farm Sales	No. of Farms
	($'000)	%	%	%
Albert	149	2.4%	2.5%	4.0%
Carleton	625	10.2%	21.1%	15.7%
Charlotte	24	0.4%	1.2%	2.8%
Gloucester	156	2.5%	2.7%	4.6%
Kent	106	1.7%	3.6%	6.2%
Kings	820	13.3%	14.6%	15.1%
Madawaska	966	15.7%	12.3%	6.3%
Northumberland	147	2.4%	3.1%	3.9%
Queens	107	1.7%	3.1%	3.9%
Restigouche	218	3.5%	3.0%	2.3%
Saint John	21	0.3%	0.6%	0.6%
Sunbury	16	0.3%	2.0%	2.9%
Victoria	514	8.4%	10.5%	8.4%
Westmorland	593	9.6%	11.8%	12.4%
York	253	4.1%	8.9%	10.1%
Sub-total	4,715	76.6%	-	-
Provincial	1,436	23.4%	-	-
TOTAL	6,152	100.0%	100.0%	100.0%

Note: 1) Expenditures only include grants & contributions to January 1987.
2) 1981 Census data.

Source: E. Keizer, Commentary on AFA Expenditure by County, January 21,1987.

implicitly advantaged under the Agreement. Seen from this angle the Agreement is not a tool for the achievement of regional equity. However, since constraints such as inadequate land base and poor management skills are found on both full-time and part-time farms, these will not be overcome on a provincial basis if wider participation is not mustered. An examination of the role regional strategies could play in this context, while outside the realm of this study, would be worthwhile.

Conclusion

The regional strategies have had some effectiveness in influencing program strategies and there are attempts under way to give greater prominence to regional needs and concerns. The actual distribution of AFA funds between regions may affect the reduction of some the constraints identified in the AFA.

Information Flow

7. *Is the external information/communication system adequate to develop a widespread awareness and understanding of the Agreement and its programs, and to generate a suitable flow of relevant projects?*

Section 8 of the Canada-New Brunswick Agri-Food Development Agreement sets out in five clauses the obligations of the two governments with regard to public information regarding the Agreement and its programs. Despite this apparent concern for public information, funding for such activities is not identified explicitly in the Agreement. Funding for the federal-provincial Public Information Plan was found within the four programs of the Agreement and under the Information Dissemination sub-program of the Human Resources and Infrastructure Support Services Initiative. A summary of AFA Public Information Plan activities, expenditures and outputs are outlined on the following pages.

The Information Dissemination sub-program focusses essentially on the enhancement of the accessibility of technical agricultural information to the agri-food sector. Public information activities, on the other hand, the heart of the information flow question above, relate to more general types of information. Essentially, they cover the communication of information regarding the existence and eligibility criteria of Agreement programs in particular those programs which offer assistance to farmers and farm organizations for projects designed to realize Agreement objectives.

AGREEMENT: Canada-New Brunswick Agri-Food Development Agreement

PROGRAM: All Programs Under the Agreement

PROJECT: AFA Public Information

INITIATIVE: Human Resource Development, Infrastructure and Support Services - Information Production and Dissemination

OBJECTIVE: - To inform the various target audiences about the nature of the programs and the types of assistance in the Canada-New Brunswick Agri-Food Development Subsidiary Agreement.
- To disseminate efficiently throughout New Brunswick and with continuity, information regarding progress and tangible results achieved under the Agreement.

INPUTS: Financial Resources:

	Expenditures ($'000)				
Fiscal Year	1984/85*	1985/86	1986/87	1987/88	Total
Planned					
Publications	-	2.5	8.0	9.5	20.0
Media-Directed Info	-	0.5	0.0	0.0	0.5
Displays	-	6.0	20.0	15.5	41.5
Promotion	-	5.0	18.0	21.0	44.0
Audio-Visual/Training	-	8.0	18.9	14.0	40.9
Equipment	-	19.8	0.0	0.0	19.8
Resource Ctr/AV Equip	-	10.0	0.0	0.0	10.0
Other	-	3.3	1.1	0.0	4.4
Total	-	55.1	66.0	60.0	181.1

* Planned expenditures for 1984/85 not available. Agreement not operational until November, 1984. Public Information Committee not fully operational until April, 1985.

Actual	1984/85	1985/86	1986/87	1987/88***	Total
Publications	3.0	2.5	4.1		
Media-Directed Info	0.0	0.0	0.0		
Displays	0.0	4.4	6.2		
Promotion	0.0	2.0	0.0		
Audio-Visual/Training	0.0	0.0	20.3		
Equipment	0.0	93.2**	8.0		
Resource Ctr/AV Equip	0.0	66.3	27.0		
Other	34.7*	0.0	0.7		
Total	37.7	168.5	66.3		

* Consulting Report: "The Next 5 Years: Communicating Agricultural Information in New Brunswick April, 1985.

** Includes offset printer purchase, N.B. Department of Agriculture $87,194 and $6,000 of communications equipment, Agriculture Canada, Regional Operations, Fredericton for in-house production of printed material. Original plans included contracting out printing. Offset printer and AV equipment for for Resource Centres outside scope of original AFA Public Information Plan.

*** Mid-Term evaluation based on expenditures to march 31, 1987.

Actual as % of Planned	1984/85*	1985/86	1986/87	1987/88
Publications		100.0%	51.3%	
Media-Directed Info		0.0%	0.0%	
Displays		73.3%	31.0%	
Promotion		40.0%	0.0%	
Audio-Visual/Training		0.0%	107.4%	
Equipment		21.3%	**	
Resource Ctr/AV Equip		66.3%	***	
Other		0.0%	63.6%	
Total		305.6%	100.5%	

* Planned Expenditures for 1984/85 not available.

** $8,000 spent, 0 planned.

*** $27,000 spent, 0 planned.

HUMAN RESOURCES:

Administered by one Regional Information Officer, Agriculture Canada, Fredericton, on a part-time basis and by the Manager of Information, New Brunswick Department of Agriculture, Fredericton, in addition to information activities associated with on-going programs of both federal and provincial departments. AFA-associated information activities represented approximately 70 percent of the workload of the federal information officer until March 31, 1987. Since April 1st, the Regional Information Officer spends 50 percent of his time on AFA and a second agricultural sub-agreement and reports to the Director General of Communications, Agriculture Canada, Ottawa. The provincial Manager of Information section spends approximately 20% of his time on AFA-related tasks. The provincial information section has 6 person-years almost solely devoted to the production of printed materials, brochures and audio-visual material.

FUNDING/DELIVERY MECHANISM:

Delivery	Funding: Federal	Provincial	Cost-Shared
Direct Provincial			
Direct Federal			
Joint			80:20*

* Funding formula began in 1986/87. Earlier activities shared according to various funding ratios.

OUTPUT DESCRIPTION:

1984/85
- Consulting Report - "The Next 5 Years: Communicating Agricultural Information in New Brunswick, Skerrett Communication Ltd., Dartmouth, Nova Scotia, April, 1985, $34,500 included resource catalogue "Agricultural Information Resources - February, 1985
- Publications and Audio-Visuals for New Brunswick, AFA Brochures, design and printing.

1985/86
- Communications Equipment Purchase Agriculture Canada Offset Printer N.B. Dept. of Agriculture, $87,194.
- A/V Equipment - Regional Information Centres, $66,300.
- Press Releases: 5
- AFA standard sign designed
- AFA display developed, used at four agricultural fairs - Moncton, Ste. Marie de Kent, Fredericton, Woodstock loaned to N.B. soil and Crop Improvement Association for Woodstock event, and Soil Contractors Convention, Moncton.
- AFA Project Reports, Letterhead, designed and printed, Info Kit designed.
- AFA Project Report published and distributed. Publishing system developed.
- 4 AFA Program Brochures produced and distributed
- AFA ads placed
- Initial research re Technology Development videos.

1986/87
- Video Equipment for in-house production, $8,000 (NBDA)
- Photographic Equipment, $27,000 (NBDA)
- Press Releases: 11
- AFA Signs: 80 produced, 48 installed
- Soil Conservation Brochure, Poster designed and produced, 5,000
- AFA Exhibits - St. Basile, St. Isidore, Fredericton, Maritime Winter Fair, Moncton
- AFA Project Reports produced, published and distributed: 9
- 3 Fact Sheets produced, distributed
- AFA Kit Folders printed: 2,000
- 4 AFA Brochures reprinted
- 5 AFA Ads placed
- Finalized shooting, script writing for four technology development videos
- Technology Development and Acceleration Projects Report - editing, layout
- Photographic inventory expanded
- Assistance provided - "Le Bulletin de la fédération", 1987/88

IMPACTS/ EFFECTS:

- It was not possible to assess the impacts and effects of Agreement information activities in the absence of adequate monitoring information. However, information activities, along with other promotion activities of Agreement staff appear to have generated a suitable flow of relevant projects from farmers and agricultural organizations.

It is important to distinguish between these different types of information as different expectations are associated with them. The Public Information Plan involves the production and dissemination of both kinds of information. Information directed toward influencing farm practice on the part of farmers has a different intent from information informing farmers and the general public of the Agreement and its accomplishments. Information geared toward soliciting proposals for projects from the farm community and encouraging participation in Agreement programs falls into the more general category of information and is the focus of the evaluation question posed by the terms of reference.

The standard way of addressing the adequacy or effectiveness of a general information/communication program is to compare understanding or awareness on the part of the relevant client group prior to the implementation of the information program and after its implementation. This comparison helps to determine if program activities reached the appropriate audience and made a difference in their awareness or behaviour. Ideally, a survey to gauge awareness of the client group regarding agricultural development information, e.g., technology transfer, etc. is undertaken at the outset to establish a base case for comparison purposes. This was not done for the AFA nor has any systematic monitoring been undertaken by the Public Information Committee of its activities. A planned major public awareness campaign through advertising in the media (e.g., television) was not carried out. Although a departmental study concluded that television ads and programs were the preferred medium for farmers, and felt to be most effective in getting the message across, it was felt that a T.V. campaign would be too expensive and considered excessive by the farming community. In the absence of such a comparison, the rate of program participation compared with previous experience or the expectations of program designers and implementors must suffice as an acceptable measure of the adequacy of information activities. However, it is important to remember that information activities are only one factor influencing program participation. Other factors such as level of assistance offered, economic circumstances and extension efforts are equally important.

Some evidence is, however, available to shed some light on farmers' attitudes regarding the communication of agricultural information by the New Brunswick Department of Agriculture. An information study was conducted for the Human Resources Infrastructure and Support Services Committee focussing on the communication of technical agricultural information in New Brunswick by the Communication Group in April, 1985 (Skerrett et al, The Next Five Years: Communicating Agricultural Information in New Brunswick). The results of this study were used to design AFA public information

plans by the AFA Public Information Committee. As part of the Skerrett study, a survey of approximately 300 farmers representing all commodity groups and regions of the province was carried out. One question related directly to the issue of awareness of assistance programs for training available under the Agri-Food Development Agreement. Seventeen percent said they were aware of such programs while 83 percent said no. It should be remembered that this survey was taken early in the life of the Agreement which would in part account for this response rate. A second question involved an overall rating of the efforts of the Department regarding the provision of technical information to help farmers with their farm operation. Fifty nine percent rated the Department's efforts as "helpful" while 41 percent thought otherwise. The conclusion made by the communications consultants at the time was that continuous efforts were needed to improve this general image of the Department. One of the consultants' major recommendations was that the Department undertake a one-year advertising campaign.

In addition, the survey found that English-speaking farmers rated the efforts of the Department higher than French-speaking farmers - 62 percent versus 41 percent. While the Skerrett study focussed on communication of technical information to farmers, the attitudinal questions give a general sense of the opinions of the primary target group for the Agreement's programs.

A second source of information regarding the adequacy of the information/communication system is the survey of clients and non-client farmers carried out for this evaluation. Of the 100 assistance recipients surveyed, 56 respondents identified the Agri-Food Development Agreement as the source of funding for their projects while 17 identified the New Brunswick Department of Agriculture and 6 identified Agriculture Canada. When questionned about how the farmer first learned that money was available from the government for work on his/her farm, 53 identified the Regional Office (of the provincial department) as the source of information, 12 identified a producer group, 10 identified a friend or neighbour and 9 said they had seen an ad in the newspaper. Fifteen identified some other source.

Ninety-two of the 100 non-client group said they were aware that the government provides money to farmers for land improvement, marketing and other development projects. As with funding recipients, 40 said they had heard about the availability of government assistance for work on their farm from the Regional Office, 20 said they learned about it from a friend or neighbour and 9 from a newspaper ad. The New

Brunswick Department of Agriculture was identified as the relevant department or program by 42 non-clients, the Agri-Food Development Agreement by 19 and Agriculture Canada by 9. While these results are not solely attributable to the information/communication function, future activities can be designed to improve these levels of awareness.

A third source of information concerning the adequacy of the information/communication system is AFA officials. In structured interviews carried out as part of this mid-term evaluation, program managers and implementors were asked directly if the information/communication system was adequate to develop a widespread awareness of the Agreement and its program and to generate a suitable flow of relevant projects. They were also asked which information program worked the best and which one was the worst. In addition, they were asked to identify the most important factors influencing the success of a public information program campaign.

Responses to these questions were not conclusive in that interviewees appeared to lack an overall sense of the information/communication program for the Agreement as a whole. Responses were program-specific in content and tended to focus on advertising for particular programs which was felt to be quite effective, in some cases too effective in that officials feared demand would outstrip program resources. In the case of one marketing program which had less than the expected participation rate, the information group undertook special promotional efforts which were met with great success.

Although most interviewees made the assumption that information and advertising efforts influenced program participation, one stated that while information was lacking on Human Resource Development, Technology and Land Resource Development there had been no shortage of program take-up.

With regard to the most effective method of communication, again results of the interviews with federal and provincial Agreement officials were not conclusive in part due to the broad range of activity undertaken under the Agreement and the multi-media approach taken by the Public Information Committee making assessments of effectiveness or adequacy difficult.

In the area of printed material, while some felt that individual mailings regarding particular programs were the most effective approach, others felt they were too expensive to justify the expense. Monthly newsletters were mentioned as both the best and worst

way of promoting program participation with the exception of "L'Echo Fronto" which was felt to be particulary effective in the French-speaking northwest. Commodity-specific newsletters were mentioned in particular by two interviewees as the best option. Brochures were mentioned once as useful for departmental officials in face-to-face meetings with farmers.

Specific advertising was felt to be effective on a program basis although views varied on the most cost-effective medium for that advertising. Newspapers were twice mentioned as the worst medium for promoting program awareness and take-up. Views varied widely regarding the effectiveness of regional newspapers. However, those who thought they were effective felt that effectiveness was conditional upon brevity and location of the articles. While some thought T.V. was the most effective approach to advertising, radio was also felt to be effective provided that ads were broadcast at noon.

Signs were mentioned only once and were felt to be ineffective since the general public doesn't pay much attention and farmers are generally aware of Agreement activities.

These comments provide little direction for improving the effectiveness of information activities. There is, in our opinion, a clear requirement for systematic monitoring of the relative effectiveness of various information/communications activities to clarify the most effective means of achieving program objectives.

Conclusion

In summary, it was not possible to assess the adequacy of the external information/communication efforts for the development of a widespread awareness and understanding of the Agreement and its programs on the part of the general public and farmers due to the lack of monitoring information on the effectiveness of information activities. The information system, along with the promotion activities of program implementors, extension workers, and regional offices of the New Brunswick Department of Agriculture, appears to have been sufficient to generate a suitable flow of relevant projects from the specific target groups namely farmers and agricultural organizations. In cases where program take-up lagged, specifically-targetted information activities proved effective in generating interest on the part of farmers and the agri-food sector.

Delivery

8. Are the delivery mechanisms for the programs efficient and effective?

Direct Delivery vs Cost Shared[6]

When the AFA was designed, direct delivery was the dominant delivery mechanism and choosing between the two delivery mechanisms was not really an issue. From a funding point of view, as designed, the AFA is primarily a direct delivery agreement. Out of a total AFA funding of $32 million, Canada contributes $25 million of which $22.1 million is marked as direct delivery. New Brunswick contributes $3.4 million on a direct delivery basis. The remaining $6.5 million is contributed on a 45/55 federal/provincial basis.

This type of mixed delivery system does exhibit certain inefficiencies. Mechanisms must be designed to allocate projects to direct delivery or cost shared funding and a financial administration system to handle project assistance payments must be established within both governments. Still, arguments for and against both strict direct delivery and strict cost sharing were advanced by those interviewed. Those in favour of cost sharing argued that a single delivery agency gives better coordination and tends to produce more information on implementation because the non-delivering cost-sharing partner has a strong interest in accounting for the use of the funds. With direct delivery, the information may exist but tends to stay within the delivering agency or department. Those in favour of direct delivery argued that cost sharing leads to duplication of effort where, for example, both the New Brunswick Community Improvement Corporation and Agriculture Canada check the expenditures on project assistance. The reason for this, of course, is that both parties demand accountability.

Considering all the comments offered by the interviewees from the ID/Advisory Committee, no strong preference emerged for direct delivery or cost shared delivery. The most commonly expressed view was that either method can work. A willingness to cooperate and a strong sense of shared purpose were cited as important elements which

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6 Direct delivery refers to the situation where funding and program delivery are carried out by a single government agency. Cost sharing refers to the case where both the federal and the provincial government contribute to program funding, but typically the provincial government executes program delivery.

have contributed to effective delivery. At the Regional level, cost-shared delivery as experienced under ASA II was clearly preferred by all concerned for its lower paperwork burden.

Whatever distinctions there might have been between direct delivery and cost sharing are lost by the joint delivery approach adopted by the AFA for all projects. Regardless of the source of funds, all projects require both federal and provincial approval at the Regional Committee, the Advisory Committee and the Implementation Directorate. Although the federal and provincial representatives may not share the same level of interest in all projects, projects appear to receive equal treatment in the review and approval process. Furthermore, from the farmer's perspective, applications are filed at the NBDA Regional Offices and the NBDA Regional staff remain their primary point of contact. Differences between the two delivery mechanisms are unlikely to be apparent to the farmer.

With regard to the current AFA delivery system, there was general agreement among the interviewees that it has been effective in attracting clients and is flexible in responding to client needs. The first year (1984/85) can be discounted because of the start-up pains that hampered delivery and only some 259 applications were received. The high rate of applications in subsequent years (1,218 and 1,521 respectively) confirms that the AFA delivery system is able to attract applications from a large segment of the New Brunswick agriculture community. Furthermore, with the introduction of the pH project in 1986/87, the participation rate can be expected to climb further.

One possible benefit of the joint direct delivery is an increase in the overall effectiveness of Agriculture Canada in addressing the real problems of New Brunswick agriculture. According to one official, by dealing with project approval and implementation, Agriculture Canada officials have gained valuable experience at the grass roots level. This experience becomes an influential factor affecting the sense of priorities and strategy used by Agriculture Canada in its New Brunswick activities. For example, the emphasis and selection of research projects at the Fredericton research station was one area cited where the AFA implementation experience has affected non-AFA activity. For some examples, see Question 9, Technology Development (page 56).

Paperwork

The high volume of paperwork was frequently cited as evidence of inefficiency. The amount of paperwork per project is formidable. Typically, a farmer applying for assistance would complete the following:

- Farm Business Development Plan (11 pages)
- Project Application
  - -Application Form (3 pages)
  - -Detailed Proposal (5-10 pages)
- Work Certification (1 page)
- Claim for Reimbursement (1 page)
- Interim/Progress report (Variable)
- Final Report (Variable)

Assistance from the Regional office would be available for the first two items, while the last two items would in all likelihood be a joint effort with the project collaborator, an agriculture professional from AC or NBDA assigned by the ID.

Although the paperwork requirements are significant on a per project basis, this is necessary to generate sufficient data for the evaluation of the project application and to account fully for the assistance grants made. The length and usefulness of the Farm Plan was questionned by several observers. According to the survey results, 68 percent of the respondents found the Plan useful. Of this group, 76 percent said it was useful because it set out things to do on their farm, while a further 16 percent said it allowed them to get government assistance. As for the project reports, they could provide a permanent record of the accomplishments of AFA projects. Such data would be valuable for analysis of the AFA results and for disseminating this information to other prospective clients. To date, the reports have generally not been successful in these areas. Question 10 elaborates further.

Application Processing Time

A better way of assessing the efficiency of the delivery system is the elapsed time required to process a project application. The routes followed by the regional and non-regional applications is shown in Figure 1-2. For those applications initiated at a Regional

Office, Table 2-9 provides a summary of the estimated average elapsed processing time for all applications and the estimated elapsed processing time by initiative for the three fiscal years 1984/85, 1985/86 and 1986/87. The average elapsed time for all applications initiated at Regional Offices was 39 days in 1984/85, 49 days in 1985/86 and 40 days in 1986/87. This pattern is consistent with a slow down in processing in 1985/86 as the number of AFA projects increased sharply, followed by an improvement in 1986/87 when refinements in the processing system reduced processing by about 9 days.

This improvement is the result of speedier processing by the Advisory Committees, illustrated by a drop in Advisory Committee processing time from 24 days in 1985/86 to 16 days in 1986/87. The Implementation Directorate registered a real improvement by also reducing its average processing time by 8 days over the same period. To a large extent these gains are offset by the increase in processing time at the Regional level from slightly less than 9 days in 1985/86 to just over 16 days in 1986/87. The increase in processing time at the Regional level occurs for Land, Marketing and Technology applications. This ranges from seven to twelve days over the three years and offsets to a large degree the striking gains made at the Advisory Committee and Implementation Directorate levels. The reasons for the increase at the Regional level are unclear to the consultant, but a possible explanation is the inability to deal with the higher volume of project applications in 1986/87 with available staff. Applications in 1986/87 increased to more than four times their level in 1984/85. Certainly some of the loudest complaints about paperwork came from the Regional offices.

Some notable differences in processing time for Regional applications occur across the initiatives. Technology applications require the most time to gain approval at an average of 50 days over the first three years of the AFA. Marketing and Land applications fall in the middle at 45 and 42 days, respectively, while HRISS applications move through relatively quickly at 33 days. The HRISS result is explained by the quick turn around time by the HRISS Advisory Committee (8.5 days) as opposed to an average of about 20 days for the other three committees. It should be noted however that the Marketing and Technology Committees have reduced their average elapsed time by about 22 days and 15 days respectively, between 1984/85 and 1986/87.

For provincial (non-regional) applications, only elapsed time at the Advisory Committee and Implementation Directorate are relevant. As shown in Table 2-9, in this group, Marketing applications require about the same amount of time to pass through the

Table 2-9

Regional/ Non-Regional Projects, Average Number of Days Elapsed, Committee Approval Process, by Initiative

	Land				Marketing				Technology				HRISS				All Initiatives			
	Regional Office	Advisory Committee	ID	Total Days	Regional Office	Advisory Committee	ID	Total Days	Regional Office	Advisory Committee	ID	Total Days	Regional Office	Advisory Committee	ID	Total Days	Regional Office	Advisory Committee	ID	Total Days
REGIONAL																				
1984/85	7.5	14.1	16.5	38.1	9.6	34	2.1	45.7	6.1	33.9	17.4	57.6	16.0	8.6	6.0	30.6	8.4	16.9	14.0	39.4
%	19.7%	37.0%	43.3%	100.0%	21.0%	74.4%	4.6%	100.0%	10.6%	58.9%	30.2%	100.0%	52.3%	28.1%	19.6%	100.0%	21.3%	43.0%	35.6%	100.0%
1985/86	9.8	22.8	14.3	47.0	6.1	33.2	23.8	63.1	8.2	26.7	11.7	46.6	4.3	19.3	20.5	44.0	8.9	24.4	15.3	48.7
%	20.9%	48.5%	30.4%	100.0%	9.7%	52.6%	37.7%	100.0%	17.6%	57.3%	25.1%	100.0%	9.8%	43.9%	46.6%	100.0%	18.4%	50.2%	31.4%	100.0%
1986/87	14.6	18.4	4.5	37.5	20.8	11.6	6.3	38.7	18.5	18.6	13.6	50.6	13.7	6.4	11.4	31.5	16.4	16.2	7.5	40.1
%	38.9%	49.1%	12.0%	100.0%	53.7%	30.0%	16.3%	100.0%	36.6%	36.8%	26.9%	100.0%	43.5%	20.3%	36.2%	100.0%	40.8%	40.4%	18.8%	100.0%
All Years	11.8	19.8	9.9	41.6	16.1	19	10	45.2	15.7	21	13.3	50	12.7	8.5	12.0	33.1	13.2	19.0	10.7	43.0
%	28.4%	47.6%	23.8%	100.0%	35.6%	42.0%	22.1%	100.0%	31.4%	42.0%	26.6%	100.0%	38.4%	25.7%	36.3%	100.0%	30.7%	44.3%	25.0%	100.0%
NON-REGIONAL																				
1984/85	n/a	n/a	n/a	n/a	n/a	17.2	2.5	19.7	n/a	39.5	12.3	51.8	n/a	7.6	13.2	20.8	n/a	16.7	7.7	24.4
%	n/a	n/a	n/a	n/a	n/a	87.3%	12.7%	100.0%	n/a	76.3%	23.7%	100.0%	n/a	36.5%	63.5%	100.0%	n/a	68.4%	31.6%	100.0%
1985/86	n/a	10	7	17	n/a	16	14.1	30.1	n/a	27.7	18.1	45.8	n/a	11.6	11.2	22.8	n/a	18.9	14.6	33.6
%	n/a	58.8%	41.2%	100.0%	n/a	53.2%	46.8%	100.0%	n/a	60.5%	39.5%	100.0%	n/a	50.9%	49.1%	100.0%	n/a	56.3%	43.5%	100.0%
1986/87	n/a	41.4	19.8	61.2	n/a	22.3	9.4	31.8	n/a	26.9	20.4	47.3	n/a	14.9	15.2	30.2	n/a	23	15.9	39
%	n/a	67.6%	32.4%	100.0%	n/a	70.1%	29.6%	100.0%	n/a	56.9%	43.1%	100.0%	n/a	49.3%	50.3%	100.0%	n/a	59.0%	40.8%	100.0%
All Years	n/a	36.2	17.7	53.8	n/a	18.3	10.1	28.4	n/a	27.9	18.8	46.7	n/a	13	14.7	27.7	n/a	20.3	14.8	35.1
%	n/a	67.3%	32.9%	100.0%	n/a	64.4%	35.6%	100.0%	n/a	59.7%	40.3%	100.0%	n/a	46.9%	53.1%	100.0%	n/a	57.8%	42.2%	100.0%

Note: 1) Regional Office: # of days from receipt of application to approval.
2) Advisory Committee: # of days from receipt of application to approval.
3) ID: # of days from receipt of application to approval.
4) The elapsed time reported covers the approval process only; time in transit between committees is unaccounted.

Source: AFA, EDIS, Special Run, June 1987

Advisory Committee/ID system as Regional applications (28-29 days). The Land, Technology and HRISS applications take 24, 12 and 7 days longer, respectively, for processing. On average, the processing time for these applications has lengthened by about 11 days over the three year period.

For the three year study period, the variation in application processing time by Region is summarized in Table 2-10. Processing time is estimated at slightly less than 40 days for Grand-Sault to just over 50 days for Moncton. A substantial proportion of the difference is explained by the 20.5 days required on average to process applications at the Moncton office. Generally, applications from the Sussex/Moncton area take about 8-10 days longer to process than those from the Grand-Sault/Florenceville/Fredericton area. A detailed analysis of the applications by initiative by region and the number of applications returned to the regions for further clarification would be required to explain these variations.

When asked whether they had to wait a long time to get their application approved, 63 percent agreed, while 33 percent disagreed (4 percent were indifferent). Thus, the consultant concludes that a strong majority of farmers are satisfied with the application turn around time.

By way of comparison, for assistance applications under the Nova Scotia Agri-Food Development Agreement, the turn-around time ranged from one to just over six weeks, with about 60 percent of farmers reporting approval periods of less than four weeks.[7] This would appear to be a faster turn-around time than is being achieved in New Brunswick. Definitive conclusions as to the reasons for the difference in turn-around time in the two provinces would require a detailed comparison of their delivery systems. Tentatively, several factors are likely to be important. The administrative arrangements necessary to deal with federal direct delivery, provincial direct delivery and cost-shared delivery of projects in New Brunswick appear to be more complex than those in Nova Scotia. The latter uses only federal and provincial direct delivery and each government administers its own projects. Projects in New Brunswick (except Land and those initiated by Government personnel) must pass through a Regional Committee, an Advisory Committee and the Implementation Directorate; in Nova Scotia, projects are dealt with by

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7 Based on answers to a survey question in a sample of about 150 Nova Scotia Agri-Food Development Agreement clients.

Table 2-10
Average Number of Days Elapsed, Committee Approval Process, by Region, All Years

	Regional Office	Advisory Committee	ID	Total Days
Bathurst	17.8	21.3	5.9	45.0
%	39.6%	47.3%	13.1%	100.0%
Chatham	11.4	22.8	8.2	42.4
%	26.9%	53.8%	19.3%	100.0%
Florenceville	9.3	19.1	12.4	40.8
%	22.8%	46.8%	30.4%	100.0%
Fredericton	15.7	18.0	6.7	40.4
%	38.9%	44.6%	16.6%	100.0%
Grand-Sault	13.0	15.6	11.1	39.7
%	32.7%	39.3%	28.0%	100.0%
Moncton	20.5	22.7	7.1	50.3
%	40.8%	45.1%	14.1%	100.0%
Province	16.5	5.3	11.7	33.5
%	49.3%	15.8%	34.9%	100.0%
Sussex	10.0	25.4	13.3	48.7
%	20.5%	52.2%	27.3%	100.0%
Average	13.2	19.0	10.7	42.9
%	30.8%	44.3%	24.9%	100.0%

Note: 1) Regional Office: # of days from receipt of application to approval.
2) Advisory Committee: # of days from receipt of application to approval.
3) ID: # of days from receipt of application to approval.
4) The elapsed time reported covers the approval process only; time in transit between committees is unaccounted.

Source: AFA, EDIS, Special Run, June, 1987.

the Agriculture Representative, reviewed by technical/professional persons and then processed by Agriculture Canada/Nova Scotia Department of Agriculture and Marketing staff. Initially, formal Advisory Committee approval was required in Nova Scotia, but once guidelines were set, the system as described was adopted. A review of application processing procedures for the AFA may be worthwhile even though the farmers expressed satisfaction with turn around time.

Conclusion

Since the beginning of the AFA, applications have increased to 1,500 a year and are likely to go higher with the addition of the pH program. Application processing time had not changed but the Advisory Committees and the ID have reduced considerably the time needed for approval. Why the Regional Offices have not been able to do the same requires further study. In general, surveyed clients expressed satisfaction with the Agreement. Thus, the consultant believes that the delivery mechanisms for the programs were efficient and effective.

C. Objectives Achievement

Achievements

9. *Are the projects approved under the programs in Schedule A likely to result in the achievement of the objectives identified in subsection 2.2 of the Agreement?*

In summary form, the five objectives identified in the Agreement are:[8]

- to identify, develop and realize domestic and export market opportunities;
- to expand primary production and value-added activities;
- to enhance the competitive position of the sector;
- to increase employment; and,
- to increase level and stability of participants' income.

The AFA is a project-based Agreement. That is, all expenditures under the Agreement are made through the implementation of a project. Thus, setting aside external influences, three broad issues need to be considered in determining the extent to which the objectives will be achieved.

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8 The full statement of the objectives is given in Appendix B.

Number and Type of Project Applications

The issue here concerns whether prospective clients are responding in sufficient numbers with good quality project applications. Although there is some concern about a lack of good quality projects in some areas, the number of projects applications has climbed sharply during 1985/86 and 1986/87 and appears likely to continue at a high level. Improvements in the economic climate for agriculture (particularly higher potato prices) and greater familiarity with the AFA requirements will be helpful in this regard.

Project Selection

Projects are selected according to the guidelines developed for each initiative. Based on the interviews with Agreement officials, the consultant concludes that these guidelines are applied assiduously throughout the AFA application review process. Furthermore, as pointed out in the answer to Question 2, the guidelines are logically consistent with the AFA objectives. Thus, approved projects are consistent with achieving the AFA objectives and have the potential to contribute to those objectives.

Project Impacts and Effects

In the final analysis, achievement of the AFA objectives will be determined by the aggregate impacts and effects attributable to the whole set of projects implemented over the lifespan of the Agreement. These macro-level impacts will be be reflected in the New Brunswick Agriculture Statistics on variables such as farm income and the value of commodity production for those commodities directly addressed by the AFA. An examination of the progress made towards achieving the AFA commodity targets will be useful, but such a step is premature at this time. Indeed, given the time lag in the statistics, the medium to long term period that must elapse before the full impacts and effects of projects will be realized and the high propensity for external events to overwhelm New Brunswick domestic production conditions (e.g the potato and the pork situations in the last two years), reaching definitive conclusions about the macro level impacts and objectives achievement will be very difficult even by the end of the Agreement.

An alternative approach is to concentrate on the micro or project level accomplishments under the Agreement. Using this approach, the impacts and effects of a representative sample of projects across all four initiatives would be examined. As far as possible, the incremental results of a project would be estimated and used as the basis for

generalizing to the effects of the Agreement on a commodity or sector basis. Income and efficiency variables such as yield (kilos per hectare, litres per cow, pigs per sow per year and so on) and cost per unit of production coefficients, market identification and penetration, production and sales of new crops would be the areas of concentration. Table 2-11 provides a breakdown of AFA expenditures by commodity. Projects dealing with commodities receiving the bulk of AFA funding (e.g., grain crops, forages, potatoes) would be candidates for micro-level study.

The four case studies outlined in the following pages provide a preliminary view of how this approach could be implemented. The information produced does not directly address the achievement of the Agreement objectives but it will indicate whether the project results contribute, or are likely to contribute under favourable market conditions, to the Agreement objectives. For example, the consultant concludes that the computerized feeding systems in free stall and tie stall barns do contribute to the primary production, competitive position and income level and stability objectives of the AFA. While definitive quantitative estimates of this contribution are beyond the scope of this study, in the consultant's view, these technology projects provide an indication that the AFA is assisting the right type of project.

The interviews and the client survey provide some additional evidence that the AFA assisted projects contribute to the achievement of the objectives. Among the AFA officials interviewed, the consultant detected a consensus that a good project selection process was leading the AFA towards the achievement of its objectives. For example, land projects were cited as contributing to objectives achievement by reducing the unit cost of production, improving land quality and thereby influencing crop selection (more high value crops) and increasing the productivity of both machinery and labour. These are the intended effects of many land projects but concrete examples of such effects are so far unavailable. Indeed, a major problem for most officials was their inability to provide anything more than an intuitive view of positive impacts and effects: systematic monitoring of project impacts and effects is not carried out, so little or no quantitative information can be brought to bear. (This point is discussed further in the answer to Question 10.) The respondents frequently pointed out also that market conditions beyond the Agreement's control have and will continue to distort and/or subsume the positive accomplishments of the AFA. Still, based on their discussions with AFA clients, respondents expressed strong optimism regarding the value of projects and their contribution to AFA objectives.

Table 2-11
Projects by Commodity and Grants and Contributions per Fiscal Year

	1984/85		1985/86		1986/87		All Years			
	No. of projects	G & C ($'000)	No. of projects	G & C ($'000)	No. of projects	G & C ($'000)	Projects #	Projects %	Grants & Contributions ($'000)	Grants & Contributions %
Dairy										
Dairy	4	8.6	37	86.5	41	192.9	82	3.1%	287.9	3.9%
Goats	-	-	1	1.6	1	1.7	2	0.1%	3.2	0.0%
Fluid milk/cheeses	-	-	2	29.6	-	-	2	0.1%	29.6	0.4%
Sub-Total	4	8.6	40	117.6	42	194.6	86	3.3%	320.7	4.3%
Livestock										
Poultry/Livestock	1	0.6	3	16.6	2	23.8	6	0.2%	40.9	0.6%
Poultry	-	-	1	5.0	4	4.5	5	0.2%	9.5	0.1%
Turkey	-	-	1	0.6	2	15.3	3	0.1%	16.0	0.2%
Chicken	-	-	4	9.0	2	2.5	6	0.2%	11.5	0.2%
Eggs	-	-	2	7.6	1	4.2	3	0.1%	11.7	0.2%
Red Meats	3	2.6	5	26.3	5	20.7	13	0.5%	49.6	0.7%
Beef	1	9.5	12	63.1	15	90.4	28	1.1%	163.0	2.2%
Swine	5	10.1	10	65.0	14	82.2	29	1.1%	157.2	2.1%
Sheep	1	1.5	3	0.8	17	4.4	21	0.8%	6.7	0.1%
Breeding Stock	-	-	2	2.1	20	12.1	22	0.8%	14.2	0.2%
Semen	-	-	1	6.8	2	0.2	3	0.1%	6.9	0.1%
Sub-Total	11	24.2	44	203.0	84	260.2	139	5.3%	487.3	6.6%
Field Crops										
Grains and Oilseeds	2	1.0	4	5.5	6	1.1	12	0.5%	7.7	0.1%
Grain crops	67	196.9	190	361.4	369	595.4	626	23.7%	1,153.7	15.6%
Soybeans	-	-	-	-	1	3.2	1	0.0%	3.2	0.0%
Sunflower	-	-	-	-	1	2.9	1	0.0%	2.9	0.0%
Forages	79	177.6	302	1,009.0	443	971.4	824	31.1%	2,158.0	29.1%
Alfalfa	-	-	2	5.9	2	7.0	4	0.2%	12.9	0.2%
Silage Feeds	1	0.5	4	18.2	4	18.4	9	0.3%	37.1	0.5%
Peas - Field	-	-	2	1.0	1	0.2	3	0.1%	1.3	0.0%
Sub-Total	149	375.9	504	1,401.0	827	1,599.8	1,480	55.9%	3,376.8	45.5%
Vegetables										
Greenhouse Veg. Prod.	-	-	3	3.5	12	18.6	15	0.6%	22.2	0.3%
Vegetable Crops	6	9.8	41	59.9	67	189.1	114	4.3%	258.8	3.5%
Potatoes	47	123.5	188	821.1	299	957.0	534	20.2%	1,901.7	25.6%
Sub-Total	53	133.3	232	884.6	378	1,164.7	663	25.1%	2,182.6	29.4%
Fruits										
Apples	2	5.6	13	40.2	32	130.7	47	1.8%	176.5	2.4%
Strawberries	5	3.5	25	57.5	34	72.0	64	2.4%	133.0	1.8%
Blueberries	1	0.3	9	36.8	39	108.8	49	1.9%	145.8	2.0%
Raspberries	1	0.3	5	2.4	4	2.9	10	0.4%	5.6	0.1%
Horticultural Crops	3	8.4	10	135.4	15	155.6	28	1.1%	299.3	4.0%
Other Fruit	-	-	1	2.0	6	13.2	7	0.3%	15.2	0.2%
Sub-Total	12	18.0	63	274.3	130	483.2	205	7.7%	775.5	10.5%
Other										
Cole Crops	-	-	1	8.3	5	10.0	6	0.2%	18.3	0.2%
Vine Crops	-	-	1	5.1	1	1.1	2	0.1%	6.2	0.1%
Ornamentals	-	-	1	9.5	1	5.7	2	0.1%	15.2	0.2%
Greenhouse	1	0.9	4	9.9	8	48.3	13	0.5%	59.0	0.8%
Nursery Stock	1	1.0	10	43.5	9	56.9	20	0.8%	101.5	1.4%
Turf	-	-	2	8.7	2	7.3	4	0.2%	16.0	0.2%
Honey	-	-	1	1.4	1	4.3	2	0.1%	5.7	0.1%
Maple Syrup	-	-	-	-	2	1.0	2	0.1%	1.0	0.0%
Herbs & Spices	-	-	1	0.7	2	0.6	3	0.1%	1.3	0.0%
Tobacco	-	-	2	3.0	2	0.5	4	0.2%	3.6	0.0%
Fur Bearing Animals	-	-	8	23.6	3	6.5	11	0.4%	30.2	0.4%
Special Crops/Products	-	-	-	-	1	10.6	1	0.0%	10.6	0.1%
Other Specialties	-	-	2	2.6	1	3.6	3	0.1%	6.2	0.1%
Sub-total	2	1.9	33	116.3	38	156.5	73	2.8%	274.8	3.7%
Total	231	561.9	916	2,996.9	1,499	3,859.0	2,646	100.0%	7,417.8	100.0%

Source: AFA, EDIS, Report #2, Menu #4, May 21,1987

Case Study No. 1

Project Title: Integrated Cereal Management

Project Objectives: The objective of this project is to increase the yield and revenue per hectare of grain.

Generally, potato production involves a rotation with grain. A desire to increase revenue from grain in order to compensate for the foregone potato revenue has prompted farmers to adopt ICM.

Project Description: Integrated (or Intensive) Cereal Management is modelled on the European method of grain production. This production technique entails the use of extra applications of nitrogen with growth regulators, and fungicides at specific stages in the growth of the grain. Extra nitrogen is applied in split applications throughout the growing season to increase yield and protein content. The growth regulators restrict the length of the straw and help prevent lodging. The fungicides are applied to control fungal diseases that tend to prevail in the dense foliage produced under ICM.

Project Results: The results cited below are based on visits to two farmers. One farmer tried out ICM in 1986 whereas the other started using ICM production techniques eight years ago.

- **Increased Yields**

Both farmers mentioned a significant increase in yields under ICM. One farmer cited yields double the provincial average in good and bad growing years.

- **Reduced Incidence of Disease**

One farmer attributed part of the increase in yield to the reduced incidence of disease under ICM.

- **Increased Labour**

The increased amount of care given to grain production under ICM means that more time must be spent on the field by the farmer. However, the farmers interviewed did not cite this as a problem because the added work does not conflict with other farm activities.

- **Higher Costs of Production**

The repeated application of nitrogen, growth regulators and fungicides increase the cost of grain production on a per hectare basis. However, one farmer stated that the resulting yield compensated for the increased costs, even in times of depressed grain prices.

Conclusions:	The ICM project makes a direct contribution toward the AFA objectives of improvement in productivity, increase in primary production and stabilization of net returns for farmers. According to the EDIS report 39 farmers have received assistance under umbrella project T317 for ICM. However, the fact that one of the farmer interviewed had practiced ICM for the last eight years suggests that promotion along with technical assistance rather than financial assistance is required to increase uptake for this technology. For instance, farmers interviewed cited a need for cheaper sprays and for a greater number of ICM varieties. (It should also be noted that the assistance offered for the adoption of pneumatic fertilizer spreaders is used by ICM farmers and is therefore indirectly assisting the adoption of ICM methods.) The removal of financial assistance in fiscal year 1987 concurs with these findings.

Case Study No. 2

Project Title: Steamed Peel Feed System

Project Objectives: The objective of this project is to develop a liquid feed system for hogs using steamed potato peel as a substitute for dry grain.

The depressed hog market over the last several years prompted farmers to adopt the Steamed Peel Feed System in order to reduce production costs.

Project Description: The Steamed Peel Feed System requires a holding tank for the steamed peel, a mixing tank where water and a hog ration are added to the steamed peel, and two pumps. One pump brings the peel to the mixing tank and the other from the tank to the animals for feeding. If desired, a computer may be added to aid in the operation of the system.

Project Results: The results cited below are based on visits to two farmers. One farmer installed his system in 1985 while the other has operated the system only since November 1986.

- **Lower Feed Costs**

Both farmers cited lower feeding costs as a benefit of the system. The more experienced producer cited feed savings of 20 percent per pig. His feed costs averaged $60 to $70 per pig. The other farmer was unable to give an exact estimate of feed savings due to her lack of experience with the system to date.

The farmers interviewed did not discuss the system in terms of payback time. One farmer installed the system on his own using much recycled materials. The other producer installed the system as part of new hog housing facilities.

- **Feed Quality Control**

One farmer stated her reason for acquiring the system was greater quality control. Feed suppliers, she indicated, will vary the quantity and type of ingredients composing hog rations depending on the price of these ingredients. The Steamed Peel System would allow her to maintain a higher degree of consistency in the animals' diet.

- **Growth Rates**

One farmer reported that the hogs take longer to gain weight under the Steamed Peel Feed System than with the traditional feeding system. He did not see this as a problem because it did not create a bottleneck in his farm operation. On the other hand, a farmer cited in the *AFA Technology Acceleration and Demonstration Projects* (June, 1984 - September, 1986) reported that he had experienced faster growth rates with the Steamed Peel Feed System.

Conclusions:	The Steamed Peel Feed System project makes a direct contribution toward the AFA objective of stabilization of net returns for farmers. In addition, the use of a by-product such as steamed peel for hog feed increases the productivity of the agri-food sector as a whole, and contributes to the expansion of domestic markets for New Brunswick products. Four farmers have received assistance under umbrella project T002 for a Steamed Peel Feed System (two others received assistance for a whey feed system but were not contacted). If assistance for liquid feeding systems is to be maintained, further examination of the reported slower hog growth impact may be warranted. A scientific study of weight uptake under traditional and steamed peel feed systems did not detect any statistical difference in weight gain when the two systems were compared. However, an identification of the management factors which may influence hog growth under a Steamed Peel Feed System would be useful. Financial and benefit-cost analyses are required to assess the merits of the assistance rates offered and whether assistance should be continued for this project.

Case Study No. 3

Project Title: Computerized Feeding System for a Free-Stall Barn

Project Objectives: The general objective of this type of project is to install a computer-based herd management system, including computerized feeders and responders, to get the maximum yield from dairy cows.

Specific objectives will vary from farmer to farmer but several can be noted:

- To manage nutritional requirements of individual dairy cows and heifers.
- To manage the feeding system to attain the best possible yield of milk per unit of grain mix.
- To alleviate dust problems in the milk parlor.
- To reduce milking time and reallocate the time saved to other farm management activities.
- To improve herd management through the use of historical production and feed data on individual cows and the herd in general.
- To introduce a herd management system that allows greater use of hired labour, particularly at times of high farm managerial load such as forage and grain planting and harvesting.

Project Description: Typically, the system consists of one to five feeding stalls in the feeding area of the barn, identification responders on each cow and a sensor in the feeding stall. By monitoring the sensor signals, the computer identifies each cow individually and, based on historical data on feeding behaviour, dispenses the appropriate quantity and mix of feed automatically without human intervention. Daily individual feeding cycles including the mix and feeding frequency (four to eight times daily) can be set taking into account lactation curves. The rate of feed drop can also be regulated according to the feeding habits of each cow.

A similar computerized feeding is available for installation and use in a tie-stall barn.

Project Results: The results summarized below are based on both free stall and tie stall barn installations. Many of the same comments appear to be applicable for other mechanized feeding devices such as automated augur systems for feeding dairy ration.

- **Labour Savings**

Virtually every farmer cited reduced feeding labour time as a major benefit of installing a computerized or other feeding system.

- **Decreased Feed Costs**

One farmer reported a 16% reduction in feed costs. This is related to a reduction in feed waste. Another cited a $5,000 reduction in feed costs during the first year of operation. Most others cited reduced feed costs as a second major benefit.

- **Increased Yields**

This is the third major benefit area cited by most users. In one case, the increased yield per cow allowed the farmer to reduce his herd by 13 cows between November 1985 and the end of the summer 1986 and to maintain milk production; further herd reductions were planned to stabilize total milk production. On a similar project in a tie stall barn, the farmer reported improved heard health and specifically mentioned a lower number of displaced stomachs by increasing the frequency of feedings per day. Other effects mentioned by some farmers were increased performance on butterfat test, less crowding during feeding and more contented cows.

- **Dust Control**

This was not widely mentioned but one farmer specifically identified a dust problem was eliminated by the introduction of the computerized system.

Conclusions:

According to the EDIS records, more than 20 dairy farms have used AFA assistance to acquire computerized and other automated feeding systems. During fiscal year 1985/86, 6 computerized free stall installations and 1 computerized tie stall installation were assisted. In 1986/87, the number of free stall installations dropped to 5 while tie stall installations climbed to 6. Based on the interviews conducted for the evaluation and the *AFA Technology Acceleration and Demonstration Projects* (June 1984 - September 1986) report, farmers adopting this type of technology are highly satisfied. Some of the cost reduction and yield improvement figures cited suggest an investment payback period of no more than three to four years when the 15-20 percent assistance rate is included. A more definitive analysis with careful "with and without" data collection is required to assess the actual rate of return that can be expected from investing in this new technology.

Even without this analysis, it is evident that the computerized feeding project is making a direct contribution towards AFA objectives such as enhancing the competitive position of the agri-food industry through improvement in productivity, human resource development and physical resource utilization, and increasing both the level and stability of net returns for dairy farmers. The project(s) does (do) this by attacking directly the slow rate of adoption of technology and by introducing the use of more advanced business management practices.

Case Study No. 4

Project Title: Automated Feed System for Tie Stall Barns

Project Objectives: The general objective of this type of project is to install an automated feed car system in tie stall barns to improve the overall efficiency of herd management.

A variety of more specific objectives can be identified similar in nature to those for the computerized system:

- To manage nutritional requirements of individual dairy cows.
- To manage the feeding system to improve the yield of milk per unit of feed.
- To reduce the time required to feed and reallocate the time saved to other farm management activities.

Project Description: Typically, the system consists of a feed car mounted on a track or I-beam that runs the length of the tie stall area. The feed car can dispense two types of feed. One might be a general feed given to all animals, the other a specialized feed given to only the high producers. The system can be set to operate automatically, dispensing feed up to six times daily, or the farmer can operate it manually according to his preferred schedule. The system can be regulated so that each cow receives a specialized mix tailored to her requirements. Adjustments to the mix can be made at regular intervals. A common practice is to make a monthly adjustment determined by the R.O.P. schedule.

Project Results: The results indicate that the benefits from adopting the feed car system accrue in four areas:

- **Labour Savings**

The automated feeding feature permits the farmers to save considerable time in feeding the dairy herd. Moreover, the frequency of daily feedings can be increased with no additional labour costs. Labour savings was the most frequently mentioned benefit.

- **Decreased Feed Costs**

A reduction in feed costs is realized from the more accurate distribution of feed. In the case of one farmer, this was estimated to reduce grain and concentration requirements by 10 to 20 percent. Most farmers cited reduced feed costs as a second major benefit.

- **Increased Yields**

This is the third major benefit area cited by most users. The benefits arise from more frequent, smaller feedings which allow the animals to assimilate their feed better. Higher production rates and increased performance on butterfat tests were cited as evidence of the gains from using the automatic feed car.

Conclusions:

According to the EDIS records, five dairy farms used AFA assistance during 1985/86 to acquire the automated feed car system. Based on the interviews conducted for the evaluation and the *AFA Technology Acceleration and Demonstration Projects (June 1984 - September 1986)* report, farmers adopting this type of technology are very pleased with the system and recommend it to others. One farmer, based on the reduced labour time for feeding and the feed cost savings he experienced, felt that he had recovered his investment ($7,360, after deducting the 20 percent assistance) in about one year. A more definitive analysis with careful with and without data collection is required to assess the actual rate of return that can be expected from investing in this new technology.

The increase in production realized from adopting this technology presents the farmer with two production options: produce more milk with the same number of milking cows or produce the same amount of milk with fewer cows. Quota availability obviously will have bearing on the option chosen. So far, both options have been exercised by the farmers adopting the technology. In any a case, the new technology avails the dairy farmer greater flexibility in making management decisions concerning profitable farming operations.

Adding a computer component to the feed car system would increase the accuracy of determining the amount of feed for each individual cow. Whether the additional investment would yield a sufficiently greater return to justify it is unclear from the data available, although the data on the computerized systems outlined in Case Study #3 suggest the option is worth exploring.

Like the computerized feeding project, the feed car system does make a direct contribution towards AFA objectives. The competitive position of the agri-food industry is enhanced through improvement in productivity, human resource development and physical resource utilization. In addition, increasing both the level and stability of net returns for dairy farmers are increased. The project does this by attacking directly the slow rate of adoption of technology and by introducing the use of more advanced business management practices.

Considering the high rate of return from adopting this technology, eliminating entirely or reducing the rate of assistance for adopting this type of technology appears to be warranted. The five projects demonstrate clearly the economic value of new technology for prospective adopters.

The survey results provide some qualitative corroborative evidence. Asked about the biggest changes in the operation of their farm due to the AFA (Survey Question 16), almost 46 percent of the respondents indicated an improvement in farm efficiency. A further seven percent cited improved technical skills, another seven percent indicated earlier than otherwise expansion and 17 percent offered a wide variety of results most of which translate into improved efficiency and/or increased income. In other words, 80 percent of the sample respondents felt that the AFA projects would generate on farm impacts and effects that contribute to the AFA objectives. Asked whether the work assisted by the AFA would increase production from their land (Survey Question 25), almost 93 percent of those responding (91 out of 98 respondents) agreed or strongly agreed.

Technology Development

Another class of projects carried out under the AFA are in research projects funded under Technology Development. Five professional positions have been filled to carry out a number of research projects including:

- Animal Nutritionist: work on liquid feeding, crab meal and oxydised milk, evaluation of silage preservation;
- Forage Conservation Engineer: general work on silage, evaluation of big round bailers, dryer design, packing bales with plastic;
- Cerealist: evaluation of cereal cultivars;
- Soil Engineer: work on soil compaction; and,
- Horticulturist: post-harvesting work with fruits and vegetables (work on shelf-life prolongation).

While farmers may do a Technology Demonstration project, they do not have the means nor the inclination to do a thorough evaluation of the given technology. The projects above endeavour to provide the parameters within which a given technology may work, isolated from the particular circumstances encountered on the farm where the technology may later be demonstrated. The research itself has taken place for over a year so far. The first two years were used to select candidates, introduce them to the Research Station and to set up the research projects. It therefore appears that a commitment of less than five years would not be possible for this kind of project. Once a technology has been developed or adapted to the New Brunswick conditions, its true evaluation rests ultimately with the farmers these technologies were intended to benefit. Nevertheless, such projects properly

targeted can complement the other AFA projects advantageously and promote the achievement of the Agreement's objectives of enhanced competitive position and income stability.

Conclusion

The high volume of projects selected according to the initiative guidelines is consistent with achieving the AFA objectives. Objectives achievement depends on the impacts and effects generated collectively by all AFA projects. Evaluating these macro level effects even by the end of the Agreement will be difficult considering lags in the statistics, the relatively long time required for project impacts to be realized and the susceptibility of New Brunswick agriculture performance to external events. Assessing the micro or project impacts for a sample of projects in the commodity groups receiving the bulk of AFA assistance is more likely to provide a reliable indication of the scope for achieving the objectives. Both AFA officials and farmers express the view that the projects are contributing to the achievement of the Agreement objectives relating to production, markets and income.

Monitoring

10. Are the monitoring systems adequate to determine progress towards the achievement of objectives?

The adequacy of the monitoring systems must be considered at two levels:

- Implementation, and
- Impacts and Results.

The purpose of monitoring at each level is different, and as will become evident from the discussion, an implementation monitoring system does not necessarily provide the information necessary to assess impacts and results.

Implementation

The EDIS System

The EDIS system allows implementation staff to monitor all of the AFA projects from the application stage through to final payment at a moderate level of detail. The strength of the system is its ability to produce a wide variety of reports, sorting project commitments and expenditure by numerous variables such as program, initiative, sub-elements of the initiatives, region, approvals, rejections and under review, and commodity.

Allowing for the inevitable lag in data entry, the EDIS can generate considerable information on the implementation status of the AFA from a project expenditure point of view. That is, to monitor spending the system works well. AFA officials involved with the Implementation Directorate, Advisory Committees and other central functions indicated that they used the monthly EDIS reports to check on the budget, commitments and expenditures aspects of AFA implementation. Most people found them useful. According to their comments, some Management Committee (MC) members and some Advisory Committee members did not make extensive use of the EDIS. MC members receive summary reports prepared by the ID and do not require the detail provided by the EDIS. For the Advisory Committee members, easier access to the system would make it more useful.

From a user's perspective, the EDIS suffers from two deficiencies whose correction would improve its usefulness and increase its use. First, the system is not user friendly. Normally, users access EDIS information through standard reports. Ad hoc requests and special analyses must be carried out through the intervention of a skilled operator. Currently such an operator is available only by special arrangement. Much of the potential for useful analysis of the EDIS data on a timely basis is therefore lost. (Although possibly atypical, the consultant's request for special analyses took over a month to process. Much of this time elapsed waiting for the system operator; actual analysis time was about one week.) On-line access through desk top computers would assist the EDIS to play a much more dynamic and integrated role in on-going implementation and monitoring activities, a fact that was pointed out by several respondents. Such a change might also be helpful in providing provincial AFA officials more timely access to EDIS than they currently appear to have.

Lack of Output Information

The second deficiency of the EDIS stems from the lack of output information. The EDIS contains mainly budget, commitment and expenditure data. Currently no data on actual outputs, impacts and effects are entered into the system. The addition of planned project outputs is underway for 1986/87. This is a step in the right direction. Nevertheless, it will be of little use in assessing objectives achievement because there is no formal follow-up system in place to identify and measure actual project accomplishments and compare these with planned outputs.

Project Implementation Tracking

Currently, the EDIS cannot track individual project implementation at a detailed level on a timely basis. Summaries indicating project status in terms of under study, approved and completed categories are available and presumably accurate with some variable time lag. The details of a project's status between the approved and the completed stages are not well known. Such information could be vital in keeping up to date on project slippage, an important problem affecting implementation progress up to this point in the AFA's lifespan. Attempting to keep track of this detail in the EDIS would be unrealistic, particularly since it is more logical to do so at the regional level. The use of a project tracking sheet, such as the one shown in Figure 2-3, currently in use in the Florenceville, seem worth exploring in the consultant's view. Created as a spreadsheet model in a microcomputer (as is apparently done in Grand-Sault) and made available to all regions, the system would offer some very interesting potential for implementation monitoring.

Impacts and Effects

Without question, follow up to evaluate the impacts and effects of AFA projects is the weakest aspect of the AFA implementation process. This conclusion is based on the consultant's observations and the views expressed by the AFA officials interviewed. As it currently exists, the follow up system consists of informal data collection by AFA officials, the project reports required for all completed projects and any special studies of project accomplishments.

Informal Data Collection

According to the study respondents, federal and provincial agriculture officials operating from the regional offices monitor the AFA projects through their visits with the client farmers. Without doubt, much useful, detailed project information is collected in this way. It can be distributed on a word of mouth basis to prospective AFA clients and used for the appraisal of new project proposals. However, in this form, its availability and usefulness for assessing project contribution to the achievement of AFA objectives is open to question.

Figure 2-3
Sample Project Tracking Form

LOC. #	A.F.A.#	APPLICANT'S NAME & ADDRESS	PHONE #	PROJECT TITLE	EST. COST ($)	DATE RECEIVED	DATE RECOM'D	DATE REJ'D.	SENT TO F'TON	APPROVAL LETTER SENT	CONTRACT RECEIVED WICKLOW	CONTRACT RETURNED TO F'TON	DATE WORK TO BE COMPLETED	FARMER CONTACTED FOR COMP. UPDATE	AMOUNT OF CLAIM	DATE CLAIM SUBMITTED	COMMENTS

Source: NBDA Regional Office, Florenceville.

Project Reports

The completion of a project report is officially required following implementation for every project in receipt of AFA assistance. In practice, according to those interviewed, project reports are not always completed. For regional projects, this appears to be a combination of little interest on the farmer's part and work overload on the part of the project collaborators. At the regional level, the project reports are prepared mainly by the regional staff (overseeing completion of a report is the individual project collaborator's responsibility). The project reports tend to be highly variable in the quantity and quality of information they contain. For that reason, a number of respondents regarded them as having limited value.

From the point of view of monitoring objectives achievement, the project reports contribute little because they concentrate on reporting what was done under project implementation rather than project results (impacts and effects). The latter will determine the extent to which the AFA objectives will be achieved but frequently they will not be known several years following project implementation. In the case of land projects, for example, the only report required is the Project Certification Sheet. This certifies that the work described in the project application was actually carried out but provides no results information. In fact, it could not do so since at least one and more likely three to five years must elapse before reliable project results can be measured. Consequently, systematic follow up on projects is necessary to collect the relevant information but so far as the consultant can tell, a follow-up mechanism concentrating on the quantitative impacts and effects of AFA project is yet to be established. Designing and implementing such a mechanism should be an immediate priority for the ID to ensure that relevant project results data are available for the final evaluation.

Special Studies

The only special study with some potential monitoring value (so far as the consultant is aware) is the report, *Technology Acceleration and Demonstration Projects (June 1984 to September 1986)*, conducted over the summer of 1986. A review of the Objective and Summary sections of the project reports reveals considerable variability in the value of the information from a monitoring perspective. This is not surprising. The main purpose of the study was to document the projects funded under the acceleration and demonstration parts of the Technology Transfer Initiative in an easily accessible format to

facilitate information dissemination. The effort is commendable and certainly provides the best available summary of project activity under any of the initiatives. It is interesting to note that site visits were the primary source of project information and the project reports themselves were found to be of limited value.

Conclusion

The EDIS contains a wealth of project financial information and is capable of generating a wide variety of standard reports. For management purposes, a better array of summary reports and easier user access on a daily basis would improve the usefulness of the EDIS. Effective project tracking is carried out in some regions. Ideally, a micro-computer based tracking system, such as the one in Grand-Sault, should be used province wide. An effective follow-up system to identify and predict impacts and effects is required to monitor progress towards the achievement of objectives.

D. Impacts and Effects

Initial Impacts/Effects

11. What are the initial indicators of impacts and effects (intended and unintended) of the programs?

In general, the programs were implemented with only a few unanticipated developments. One of these was the sudden signing of the AFA in June 1984. From mid-September to mid-November of that year a freeze on spending was instituted. By then it was winter, effectively resulting in the loss of the 1984 farm year for most projects. Only about 25 percent of the first year's budget funds were spent. Realistically, this means a delay of approximately one year before expected program results might be expected.

Other unanticipated developments which will delay or mitigate against results fall into three categories: spending restraints, changes in market conditions and lack of familiarity with the new type of Agreement. From January to March, 1986, a freeze on spending occurred. Adverse market conditions in grain and potatoes have affected the rate of project uptake because producers were unable to contribute their share of project expenditures. The AFA signed in 1984 was different from in the ASA II both in terms of concept and delivery. At first, the project rejection rate was high and it took some time for farmers to understand the type of projects covered under the Agreement.

It is in relation to program targets that the effectiveness of the AFA will be determined in quantitative terms. The extent to which established targets will be achieved depends mostly on their sensitivity to market conditions. While it is still too early to assess whether targets will be met, two comments can be made at this point. First, the hiatus experienced in the first year of the Agreement and the on-going high project slippage means that targets will not be achieved at the anticipated rate. Second, while AFA funding was 54 percent smaller than envisioned in the *strategy*, the commodity targets of the strategy were included in the AFA with only minor adjustments. Target increases for beef and blueberries are even higher for the AFA than in the *strategy*. The other targets are smaller but not as much as the funding reduction would lead one to expect (Table 2-1).

Spending toward major commodities and commodity groups will give an indication of initial impacts and effects. As shown in Table 2-11, $3.4 million has been spent so far toward field crops ($2.2 million to forages and $1.2 million to grain crops) and $1.9 million to potatoes. All other commodities have received less than $300,000. It must be noted that a majority of grants and contributions toward field crops were taken up by dairy producers.

When asked about initial impacts and effects, all Agreement officials expressed faith (for lack of objective proof) in the positive outcome of the projects. A subjective form of monitoring based on informal reports from farmers to regional offices (on-farm visits, reports from office staff, farmers visits to the office...) and from regional offices to the central office was used. Other indicators used were: whether farmers are still in business, project duplication in the region and the judgement of field specialists and collaborators. One interviewee mentioned that a processing plant for blueberries is now in the planning stage thus indicating a significant increase in production.

The quarterly progress reports provide summary information of project approvals by program and initiative. Also included are summary discussions of impacts and effects such as:

- hectares of sub-surface draining
- hectares of diversion terraces
- hectares of land treated for pH adjustment
- number of grain tanks
- number of potato storages
- number of marketing trips
- number and variety of technology projects
- number of training seminars
- number of cost of production studies

These are very much indicators of where the impacts and effects by commodity groups can be expected to occur but no actual measurement of project results is included.

The case studies compiled by the consultant provide some examples of other indicators of impacts and effects. A review of marketing, technology development and HRISS projects by functional category also provide some initial indicators. As Table 2-12 shows, 61 percent of marketing projects are structures and equipment (48.5 percent of expenditures). The remainder of the projects are more marketing-oriented activities such as promotion, test market and travel. Thirty percent of research contracts under technology development shown in Table 2-13 dealt with equipment (25.6 percent of expenditures) followed by performance and impact evaluation contracts (20.1 percent of expenditures). As shown in Table 2-14, 62 percent of HRISS projects are fact-finding travel and production and marketing seminars and workshops (19.4 percent of expenditures).

About 48 percent of the clients surveyed stated the single most important change in the way they operate their farm attributable to the program was an improvement in efficiency. About nine percent cited that the program allowed them to expand earlier while another seven percent considered it improved their technical skills. Twenty percent of the clients interviewed did not perceive any change in their operation due to the AFA and none indicated an improvement in management skills.

About 93 percent of the clients surveyed believed work carried out with government funding would increase production on their farm. For 82 percent of the clients the assistance allowed them to do things they would not have done otherwise. The Agreement was seen in a positive light: 81 percent of AFA clients and 62 percent of non-clients felt the Agreement increased their level of confidence in the New Brunswick agri-food industry.

Conclusion

Initial indicators of impacts and effects are project expenditures by commodity area, the number and type of projects, the information provided informally from farmers to AFA officials, physical measures of project outputs such as hectares of land drained, number of marketing trips, etc. The case studies show that for the technology projects studied, improved yield and reduced cost indicators have been generated. Farmers surveyed mentioned increases in production and improvements in efficiency to the extent of which remains to be measured.

Table 2-12
Marketing Projects by Functional Category, 1984/85 - 1986/87

	Projects		Approved	Grants & Contributions		G & C per
	#	%	($'000)	($'000)	%	Project ($'000)
Structures	91	34.1%	756	592	32.7%	6.5
Equipment	72	27.0%	312	287	15.8%	4.0
Promotion	37	13.9%	710	538	29.7%	14.5
Travel	34	12.7%	174	113	6.2%	3.3
Information	10	3.7%	119	74	4.1%	7.4
Test market	10	3.7%	164	60	3.3%	6.0
Other	7	2.6%	57	36	2.0%	5.1
Research	6	2.2%	130	114	6.3%	18.9
Total	267	100.0%	2,423	1,811	100.0%	6.8

Note: Covers only those projects reporting actual expenditure.

Source: AFA, EDIS, Report #15, Menu #3, April 29,1987

Table 2-13
Technology Development Research Contracts by Functional Category, 1985/86

	Contracts		Expenditures		Expenditure per
	#	%	($'000)	%	Contract ($'000)
Equipment	8	29.6%	174.3	25.6%	21.8
Variety crop development	3	11.1%	72.9	10.7%	24.3
Disease	1	3.7%	31.1	4.6%	31.1
Cultivation	1	3.7%	7.4	1.1%	7.4
By-product use	4	14.8%	51.8	7.6%	12.9
Baseline data collection	4	14.8%	116.3	17.1%	29.1
Performance/impact evaluation	5	18.5%	136.4	20.1%	27.3
Efficiency improvement	1	3.7%	89.8	13.2%	89.8
Total	27	100.0%	679.7	100.0%	25.2

Source: AFA Administration.

Table 2-14
HRISS Projects by Functional Category, 1984/85 - 1986/87

	Projects		Approved	Grants & Contributions		G & C per
	#	%	($'000)	($'000)	%	Project ($'000)
Seminars, courses, workshops:						
1. Production	54	30.3%	144	103	9.5%	1.9
2. Marketing	3	1.7%	17	11	1.0%	3.6
Fact finding (travel)	53	29.8%	124	97	8.9%	1.8
Information studies (training)	21	11.8%	453	298	27.4%	14.2
Core funding (org. dev.)	18	10.1%	49	20	1.9%	1.1
Equipment	8	4.5%	260	209	19.2%	26.1
Other	8	4.5%	209	198	18.2%	24.7
Resource centers	7	3.9%	94	65	6.0%	9.3
Info. dissimation (pamphlets, etc.)	6	3.4%	175	86	7.9%	14.3
Total	178	100.0%	1,525	1,087	100.0%	6.1

Note: Covers only those projects reporting actual expenditure.

Source: AFA, EDIS, Report #15, Menu #3, April 29,1987

12. Are the identified constraints being addressed by the initiatives?

The AFA identifies five constraint areas to be addressed by its programs and initiatives:

- *Soil Erosion*

  Continued soil erosion has resulted in variable yields and lower quality crops, despite increasing applications of expensive inputs. Soil management problems such as compaction and the loss of organic matter requires urgent attention.

- *Soil Characteristics*

  The potential to grow certain crops is hindered by the physical characteristics of the soil and the under-development of the land. Without adequate drainage and land forming, delays in planting and harvesting reduce crop yield and competitiveness.

- *Market Retention*

  The inability of small to medium size enterprises to identify specific markets, to maintain the required quality and consistency of supply, and to provide customer services, results in less than adequate profitability and market growth.

- *Technology Adoption*

  The slow rate of technology adoption and the limited technology appropriate to New Brunswick conditions lead to over-capitalization and reduced productivity.

- *Management and Technical Skills*

  The inappropriate use of business management practices and technical skills by some managers and organizations results in lower productivity and profitability.

Based on the interview information, the consultant concludes that the AFA is broadly addressing these constraints. This view is based on the understanding that the initiatives and their related implementation guidelines were designed to attack the constraints. Thus, logically, if projects are selected according to the guidelines, the constraints are being addressed.

A review of actual versus planned expenditure by initiative, as shown in Table 2-11, provides another measure of the extent to which AFA activities are addressing the identified constraints. To the end of 1986/87, the actual spending figures show total expenditure is concentrated more heavily on Land than was planned (47% vs 39%) while

HRISS has received a lower proportion of actual spending (12%) than was planned (16%). The Technology and Marketing spending figures are reasonably close to their planned allocation. Within Marketing, Market Information and Market Risk are receiving considerably less attention than was planned. Promotion, Market Development and Market Research , on the other hand, account for significantly more actual expenditure (10%) than was planned (3%). On this basis, the AFA can be said to be addressing the identified constraints, albeit with a somewhat different emphasis than was planned.

But, to determine whether the constraints are really being effectively reduced or eliminated requires an examination of the results achieved by AFA assisted projects. As the answers to questions 9, 10 and 11 indicate, at the project results level the answer is not so clear cut. In those cases where they have in fact been achieved , actual project results are not well documented. In many other cases, actual project results are not known and will not be known for several years Under these circumstances, concluding whether or not the initiatives will alleviate the constraints is premature. In any event, considering the level of resources available under the AFA, and their rate of utilization, expecting to fully resolve the constraints within a five year time frame would be unrealistic.

Conclusion

The AFA initiatives as designed and implemented through their guidelines do address the constraints in the Agreement. The Land initiative has received somewhat greater and HRISS somewhat less emphasis than was planned. No conclusion can be reached at this time as to the extent to which the constraints will be resolved by the end of the Agreement.

Duplication/Gaps/Complementarity

13. Are there duplications or conflicts between Agreement programs or of Agreement programs with external programs?

There appear to be no major duplications or conflicts between Agreement programs or of Agreement programs with external programs. Some minor issues require a brief discussion.

The Canada Agriculture Market Development Initiative (CAMDI) provides assistance for vegetable storage construction, and the Program for Export Market Development (PEMD) provides assistance for overseas market development travel. An

applicant to the AFA for either type of assistance must be rejected first by CAMDI and/or PEMD. This can cause some delays and is regarded as an irritant where a quick turn around on an application is needed. Still, neither situation appears to warrant any further remedial action.

Several respondents cited the Atlantic Livestock Feed Initiative (ALFI) as a potential source of conflict with the AFA. Others pointed out that ALFI had been designed to complement the AFA. This situation will be matter of interest for the final evaluation of the AFA.

Within the AFA some minor issues arise were identified during the interviews. For example, both Technology and Marketing can fund humidity and ventilation systems for potatoes. This will apparently be resolved by the ID. Investigative travel can be funded under both Marketing and HRISS but a clear application of the guidelines can resolve any problems.

Conclusion

Duplications or conflicts between Agreement programs or of Agreement programs with external programs has been a minor issue over the first three years of the AFA.

14. Are there instances where gaps exist between programs of the Agreement or Agreement programs with external programs?

One gap cited by several respondents is the lack of assistance for capital structures except for pre-cooling units, silos and grain storage tanks. Although the respondents are accurate in their assessment, the situation can hardly be described as a gap. The design of the AFA and the Guidelines for Initiatives shows clearly there was never any intention of funding capital structures. The AFA was intended to focus more sharply than its predecessor agreement on the identified constraints affecting agriculture development in New Brunswick (see Question 12).

Several interviewees noted that where a gap was identified for a need falling within the AFA objectives, adjustments to the implementation guidelines or a special funding request to the MC could resolve the situation. Still, several points deserve comment.

Potato Technology Development

This is not covered by the AFA because it is regarded as part of the Agriculture Canada A-base. The AFA cannot therefore entertain projects in this area and has turned down at least one project request. The concern expressed is that since the A-base is short of both funds and person years, long term commitments to potato research cannot be made. The situation is further compounded by the reduction in research funding in universities. In the longer term, the lack of research activity could be detrimental to the competitive position of the New Brunswick potato industry (not to mention other parts of Canada). This is not to say that AFA funds will solve whatever problem exists, but considering that development of the potato industry is one the commodity objectives of the AFA, the situation at least deserves careful attention.

Core Funding

Under HRISS, commodity organization development is an objective. This is meant to take place through assistance for specific development projects. Activity in this area is much lower so far than planned: the budget allocation for Infrastructure and Support Services was seven percent of the AFA funds but the activities account for only slightly more than two percent of actual spending up to March 31, 1987 (the figure could increase if more of the committed funds are actually claimed). One of the main issues appears to be that many of the commodity organizations do not possess the organizational ability and/or the resources required to prepare, finance and implement development projects even with AFA help. In these circumstances, achieving the objective of stronger commodity organizations may only be possible in the near term with an interim period of what might be called quasi-core funding. In order to develop a project for AFA assistance, an organization could, if necessary, be first granted funding to hire staff or other resources to develop the project application. If successful, project funding would cover all project-related staff and other resources over some specified period. During this period the organization would be expected to develop more of its own resources to achieve better long-term effectiveness.

Long Term Loans for Land Development

Assistance for land development project is one of the major funded activities under the AFA. The current system requires the farmer to make an up front cash commitment for

land development work whose returns are likely to occur only over three to five years or longer. In the view of several respondents, the provision of long-term low-interest loan (in place of the current cash grant) would help to match the flow of land project benefits with the cash outflow to pay for the project and could help to make land development a more attractive project opportunity for a wider range of New Brunswick farmers. Asked whether they would borrow money for land improvement, 55 percent of clients said they would, while 43 percent declined. Among non-clients, opinion was about evenly split: 48 percent said they would borrow and 49 percent said they would not. In addition, over 96 percent of both clients and non-clients agreed that land improvement is necessary for a healthy agri-food industry in New Brunswick. These figures suggest a strong interest in land development exists and that a majority of farmers would be interested in a loan program for land development.

Manure Storage

The *strategy* indicated that the improvement of waste management practices is essential to reduce agriculture-related adverse side effects on the environment. While the AFA clearly did not intend to fund capital structures, the lack of assistance for manure storage on hog farms was expressed to the consultant as a gap in the AFA.

Conclusion

No serious gaps were identified between Agreement programs or with programs external to the Agreement. The possibility does exist that lack of funding for potato research may lead to future lack of competitiveness for the New Brunswick potato industry. The use of quasi-core funding to develop some commodity organizations to the point where the use of project funding for organization building purposes is feasible needs consideration. The use of low-interest long-term loans may be an effective way to bridge a cash gap that prevents farmers from responding in larger numbers to the Land Development Initiative.

15. Are the programs of the Agreement complementary with each other and with external programs?

Among the evaluation respondents there was a general consensus that the AFA programs are complementary with each other in a number of areas and also with external programs. A review of the AFA programs confirms this view, although promoting or emphasizing some of the complementary relationships does not seem to be a priority. In the view of some observers, this approach is preferred because forcing farmers to adopt complementary projects would limit the flexibility of the AFA and could retard the

participation rate. In any event, clients are free to pursue some of the complementarities if they so wish through the existing AFA project framework.

To support this general view, examples of potential and actual complementarity can be noted:

- The Livestock Feed program is supported by the assistance offered for high quality storage facilities and equipment.
- The Land Development Initiative complements the Livestock Feed objectives.
- Research activity at the Fredericton research station such as livestock feed trials, testing methods of conserving high nutritive value in forages and testing new varieties of fruits, are highly complementary with the AFA objectives and programs.
- Some of the training activities funded under HRISS help to attain a more efficient introduction of new technology.
- HRISS provides funding for farmers to attend conferences on soil conservation which complements the soil conservation objectives of the Land Development Initiative.
- Soil conservation work is related to maintaining and/or improving potato quality; improving the latter is the fundamental rationale underlying assistance for potato storages which in turn relates to achieving the improvements in marketing sought by the AFA.
- The support offered by Technology Transfer for Integrated Cereal Management and High Precision Fertilizer Spreaders complements the AFA potato objectives by supporting the means of achieving a more lucrative and economically balanced crop rotation. This in turn is complementary with soil conservation efforts in the potato growing areas.
- Apple storages have been jointly funded by the AFA (25%) and the CAMDI (Canada Agriculture Market Development Initiative, 8.33%).
- The AFA jointly funded a project with other provincial governments and the federal Program for Export Market Development (PEMD) to promote increased sales and consumption of wild blueberries.

Conclusion

The programs of the AFA are complementary with each other and with external programs in a number of areas as the examples listed above show. The flexibility of the AFA program/initiative structure allows farmers and others to make extensive use of the complementary relationships if they so wish. Promoting the complementarity by encouraging or forcing farmers to adopt integrated project packages has not been part of the AFA implementation process so far.

3. CONCLUSIONS AND RECOMMENDATIONS

1. *The consultant recommends an annual review of AFA specific and industry-wide commodity targets to develop more realistic values taking into account changing external market factors.*

The commodity targets contained in the AFA were developed over the 1982-1983 period. They reflect the level of program resources called for in the 1983 Agri-Food Development Strategy, $70 million, in contrast with the $32 million actually made available under the AFA. Other factors affecting the realism of the commodity targets include the period of low potato prices during 1984 and 1985, the depressed state of the pork market, the low rate of project uptake during the first year of AFA implementation and the relatively long gestation period to realize the full impacts and effects from some projects particularly land development. Although some revisions have been made, a full scale review to establish more realistic commodity target values is clearly desirable. Such values will be required for any meaningful assessment of the accomplishments of the AFA in terms of additional commodity production. To be widely useful, target values should be established in terms of the commodity variables reported in standard agriculture statistics publications such as *New Brunswick Agriculture Statistics* and various publications of the marketing Boards.

2. *The consultant recommends the allocation of more resources to regional level activities by both the federal and the provincial partners to the AFA.*

To a large extent successful implementation of the AFA depends on two factors, the activities undertaken by the Regional Offices and the response to the AFA Initiatives by farmers in the seven agriculture regions. Whether the current level of resources made available at the regional level by Agriculture Canada and New Brunswick Agriculture is commensurate with AFA objectives achievement is open to question. With four active field representatives to cover the seven regions, some of whom have other duties, Agriculture Canada does not have full-time representation in any of the regions. New Brunswick Agriculture staffs its regional offices with a variety of professional personnel and support staff, but in all cases these people are responsible for both non-AFA and AFA provincial duties. Specific examples are difficult to cite but the consultant believes the periodically high volume of project applications combined with the need for regional staff to perform many other duties undercuts the potential quality and innovativeness of AFA projects.

Furthermore, the variable quality of the project reports appears to be related to the imbalance between the overall workload, the urgency attached to attracting and processing new project applicants and the resources available to carry out these duties. Additional resources at the regional level would help to resolve this situation.

3. *The consultant recommends a review of the application processing system at the regional level to determine the reasons for the increase in application processing time and to effect corrective actions.*

The analysis of application processing time revealed a definite upward trend at the Regional level in contrast with a decline in processing days at both the Advisory Committee and Implementation Directorate levels. No definitive conclusion could be reached regarding the reasons for this although several hypotheses can be advanced:

- the aggregate number of applications to be processed has tripled over the first three years of the AFA but staffing resources have not increased commensurately;
- as the number of applications increases, more regional staff time is allocated to assisting with project applications and correspondingly less is available for general processing and evaluation;
- the Advisory Committees and the Implementation Directorate have reduced their processing time by refining their processing methods; and,
- the use of the umbrella project approach shifts the project processing burden to the regions.

Further study and analysis of this issue is required to develop a final diagnosis and design a suitable remedy. Recommendation 2 may provide part of the answer but the issue is regarded to be sufficiently serious to warrant specific attention.

4. *The consultant recommends a review of the paperwork burden from the farmer level through the regional office to the Implementation Directorate.*

Complaints about the volume of paperwork were made at all levels of the AFA implementation system from the farmer on up. Although the number of forms, plans and reports to be completed is considerable, the consultant believes such administrative elements are necessary for proper accountability. Still, paperwork is obviously an irritant. A redesign of some of the forms to pack more information per page is one possible improvement. This would reduce the volume of photocopying, a major source of the

complaints. A reassessment of what information is actually used and what is essential information at each step in the application handling system may also reveal other paperwork economies. The very fact of undertaking an examination of the paperwork may in itself be seen as evidence of concern for the workload imposed on officials involved with AFA implementation.

5. *The consultant recommends the AFA be amended to permit reallocation of Agreement funding among the programs with appropriate approval by the respective Federal and Provincial Ministers.*

Currently, reallocation of funds among the programs requires approval by the federal treasury board and the provincial board of management. Applying for such a reallocation opens up the possibility for Agreement funds to be reallocated to other agriculture and non-agriculture uses. Consequently, even where a change in the agriculture environment may make reallocation of program funds appropriate, a request for reallocation is unlikely to be initiated to avoid any possible loss in Agreement funding. Under these circumstances, there is no real possibility program reallocation will occur and effectively no mechanism for program reallocation exists. Fine tuning the AFA programs to adapt them and improve their relevance to the evolving development needs of New Brunswick agriculture has not and most likely will not occur within the present system.

6. *The consultant recommends a separate funding allocation with its own budget heading be made within the AFA to cover administration.*

Currently AFA funding is allocated to the four programs (Livestock, Livestock Feed, Potatoes and Horticulture Crops), and within each program to the four initiatives (Land, Marketing, Technology and HRISS). Furthermore, on the federal side, for example, each of these spending slots is further subdivided in terms of three categories: Operating (Vote 5), Capital (Vote 10) and Grants and Contributions (Vote 15). The funding for the administrative activities supporting AFA implementation is disbursed across the various Vote 5 allocations. Needless to say, this system is complex to administer and time consuming to effect resource reallocations. Collecting all of the administrative funding under a single initiative is suggested as an effective way of simplifying the administrative requirements associated with funding reallocations across initiatives and also to provide a more evident indicator of the administrative resources used by the AFA.

7. *The consultant recommends a review of the criteria used to evaluate funding requests from commodity groups to consider the inclusion of quasi-core funding as an eligible type of assistance.*

Participation by commodity organizations in HRISS funded projects has been less than AFA officials hoped. This appears to be explained by the combined effects of several factors. Under current circumstances, AFA funding for commodity organizations is limited to project specific activities. This is consistent with the general project orientation of the AFA. To be successful in acquiring funding, organizations must be able to prepare convincing project applications and they must also be able to fund their share of project costs. The level of development and the resources available to achieve their objectives varies considerably across the commodity organizations active in New Brunswick agriculture. The better-developed and the wealthier organizations are able to respond to the HRISS guidelines but other organizations are not. To achieve the infrastructure building objectives of the HRISS initiative, an interim step of providing quasi-core funding is suggested. A project orientation could be retained overall but, for example, an organization would be permitted to make an application to hire a staff person to develop a project application and assist with its implementation if successful. In a sense, this approach would be parallel to the practice of hiring contract personnel to implement the AFA programs. Obviously the details require further thought the approach is recommend as having good potential to build a stronger base of agriculture organizations in the province and to assist a larger number of commodity organizations to develop to the point they can make use of project specific funding. This would be in keeping with the objectives of the AFA.

8. *The consultant recommends future federal-provincial agricultural development agreements should establish a public information program as a specific 'program' of the Agreement with assigned resources.*

Under the current AFA, the public information/communication activities were not specifically identified as a program or initiative in the Agreement with the result that there were delays in start-up and lost opportunities for early promotion of Agreement programs.

Specifying an Information/Communication program would highlight the importance of these activities in heightening public awareness of the efforts of governments with regard to expenditures and development efforts in the sector. Far from being a minor aspect of a federal-provincial agreement, information/communication is a constant concern of ministers and the question of "visibility" is a recurring theme throughout the life of all

such agreements. Agreement program structure, funding and implementation arrangements should reflect this reality.

With program status, farmers, commodity groups and other agricultural organizations as a sub-set of the general population could ultimately be better informed regarding programs of assistance available under the Agreement since the establishment of a specific information/communication program could reduce start-up time involved in implementing Agreement programs. In addition, officials responsible for information/communication activities would avoid the bureaucratic complications of finding an appropriate funding source for information activities from Agreement programs or initiatives designed with other objectives and with eligibility requirements geared for different purposes.

With program status, information/communication activities would have greater visibility and their strategic importance to the successful implementation of the Agreement as a whole would be highlighted.

9. *The consultant recommends the Public Information Committee should systematically monitor the effectiveness of its information/ communication activities via a public awareness survey and specific surveys of target audiences and other on-going activities.*

Monitoring information regarding information/communication activities undertaken under the AFA did not exist for purposes of this mid-term evaluation. This recommendation provides for on-going monitoring activities so that public information/communication can be improved and used by Agreement managers in a more strategic manner. A survey of target audiences at the outset of the Agreement and near its conclusion would provide adequate information regarding the awareness and knowledge of specific groups with regard to agricultural development in general and Agreement programs and initiatives specifically. This should be done strategically, targetting on key producer groups and would therefore involve close liaison with program personnel. The surveys would include information regarding the effectiveness of various types of media in reaching specific audiences. The Skerrett report provides some information regarding the receptivity of the agricultural sector to agricultural development activities in New Brunswick, but focusses mainly on technical information rather than general information regarding Agreement programs, objectives and accomplishments. A general awareness survey should include both types of information.

In addition to an overall survey, the specific surveys would target and document problem areas of the Agreement in terms of participation, highlighting the need for concerted information efforts on the part of program personnel. Again, close liaison with program implementors would be essential.

The designation of a specific individual charged with responsibility for monitoring of Agreement programs in general would provide the impetus for carrying out projects providing effectiveness information regarding an information/communication program.

10. The consultant recommends the New Brunswick Department of Agriculture Communications Unit should take a stronger role in the development implementation and monitoring of a pro-active public information plan for Agreement programs.

This recommendation is based upon recommendations outlined in the Skerrett Report, *The Next Five Years: Communicating Agricultural Information in New Brunswick*, and observations made as part of this mid-term evaluation. Presently, the technical expertise regarding appropriate information/communication activities is provided by the federal government while the provincial department is involved almost entirely in the physical production of materials which it does free of charge. In addition, Agreement funds have paid for the purchase of printing equipment for the provincial information unit. Translation, a key element, given the survey results of the Skerrett Study, has largely been taken care of by Agriculture Canada, due to time delays on the provincial side. While sufficing for current requirements, these arrangements do not address the underlying need for improvements in the communication of agricultural information in the province to both official language groups and for the promotion and reporting of Agreement programs and their accomplishments.

The need for a more pro-active role on the part of the provincial department will be key in light of the reduced time commitment of the Agricultural Canada regional information officer.

11. The consultant recommends the design of additional summary reports for production by the EDIS and the provision of on-line accessibility to EDIS data, possibly in spreadsheet file format.

The EDIS is capable of producing a wide range of reports concerning the status of AFA projects by program, by initiative, by region, by committed vs actual spending and so

on. Most of those interviewed at the Management Committee, Implementation Directorate and Advisory Committee levels indicated they used some of the reports to review AFA progress. The consultant was also able to use EDIS reports with not inconsiderable effort to prepare the overview tables presented earlier in this report. A number of interviewees expressed a desire for a better selection of summary reports but few were able to offer specific suggestions. In the consultant's view, one useful type of summary report would serve as the cover page for the existing reports. For example, for Report 5, Menu 4, a summary table presenting only the region totals with corresponding percentages would be useful. The existing report would then provide the necessary backup detail. Report 1, Menu 4 provides a summary of Report 2, Menu 4 but the former could be improved by reporting only the total lines and designing an improved format perhaps along the lines of Table 2-8.

Better summary reports are likely to be only a partial solution. The ability to answer ad hoc questions and more immediate access to the EDIS project information appear to the consultant to be equally important issues for those users interviewed. A possible solution for many users would be access to EDIS through a microcomputer. This access could be either selected EDIS files directly on a read-only basis or in the form spreadsheet files (on floppy disks or a centrally accessible hard disk) for manipulation in a program with both calculation and database capabilities such as LOTUS 123 or EXCEL. With the increasing availability of microcomputers to AFA staff, the latter is the preferred route in the consultant's opinion.

12. *The consultant recommends the design of an analysis protocol to be incorporated in the Final Report Project Checklist to provide further guidance for the preparation of project reports.*

Project reports are currently supposed to be prepared in accordance with the Final Report Project Checklist. They vary in length but generally provide a good description of the nature of the project. At the same time the reports lack consistency in the way they analyze project outputs, impacts and effects in relation to the objectives stated in the project proposal. The proposals tend to be specific and quantitative in their description of project objectives. The project reports tend to be general and qualitative, and too often do not assess the accomplishments of the project explicitly in terms of the objectives specified in the proposal. The analysis protocol would provide a detailed specification of the elements of the proposal objectives to be addressed in the project report. For example, if a project objective is to improve efficiency by reducing costs, the amount of cost reduction and how

this was achieved should be outlined in the report. If no cost reduction was achieved, the reasons why should be specified. Or, if the project objective is to improve efficiency by increasing yields, then a detailed comparison of the expected yield gains versus the actual yield gains with an explanation for any variances should be provided. Where the project report is prepared prior to the availability of adequate data on accomplishments (impacts and effects), the report should be regarded as an interim document to be completed at a later date. To ensure this is done, a follow up mechanism should be introduced. For example, the Management Committee could direct the Implementation Directorate to prepare a review of the project reports on a regular basis summarizing the quality of the reports produced and the lessons learned. Such a mechanism would be a useful project monitoring technique and would also provide a valuable database for final evaluation purposes.

13. *The consultant recommends the design and implementation of both macro-level and micro-level monitoring systems to allow for adequate future evaluation of the impacts and effects of the AFA. Macro-level monitoring is recommended as part of the final evaluation of the AFA.*

Monitoring the impacts and effects of AFA projects can be performed at the macro-level, the micro-level or both. Macro-level monitoring involves an examination of commodity production levels annually and a comparison with the AFA commodity targets. Since commodity production levels are influenced by many variables outside the control and influence of the AFA, particularly weather and world markets, drawing clear conclusions from such an analysis will be very difficult, if it is even possible. Two approaches are possible. One involves a qualitative assessment of the accomplishments of the AFA and their resulting impact on commodity production. This approach relies heavily on the judgement of experts obtained through extensive interviews to develop conclusions concerning the success of the AFA in meeting its commodity targets. These interviews could be supplemented with an AFA client survey designed to elicit specific information on the effects of AFA assistance on commodity production or other results of AFA projects. The other approach involves the construction of a quantitative model of New Brunswick agriculture. Variables capturing the impacts and effects of AFA assistance are included in the model to define a quantitative relationship between AFA activities and commodity production. Considering the lags between the implementation of AFA projects and any resulting increases in commodity production, neither approach is likely to have a lot of information to work with in the short run. The qualitative approach will however be able to offer conclusions sooner than the more data intensive modelling approach. For this reason, it will be the more feasible for final evaluation purposes and is so recommended.

Micro-level monitoring will not give direct evidence on the achievement of the commodity targets but it will provide solid evidence on the real and potential contribution of AFA projects to the AFA objectives. The general approach is to identify a representative sample of AFA projects to be monitored. Ideally, the project to be monitored is selected at the time of application and the relevant baseline data (describing the situation without the project) are collected before implementation of the AFA project. The project is then monitored over an appropriate time period to obtain data on its impacts and effects on farm income levels or other important variables. An analysis of these data will yield an assessment of the real and potential contribution of the project to AFA objectives. If the sample of projects is representative, it should be possible to generalize the results on a province-wide basis for the specific project. Furthermore, the analysis should provide some useful insights into whether the rate of project assistance is appropriate or not. This type of monitoring could be extended to cover farmers who have already completed an AFA project provided they are able to supply pre-project data. This was the case with a number of the farmers interviewed in connection with the case study on computerized feeding systems in free stall barns. The case study approach used for this study in combination with the recommended analysis protocol (see recommendation 12) could serve as the basis for a micro monitoring system. Where appropriate data are available, the methodology could be extended to include a combined financial analysis and benefit cost analysis to assess project financial and economic viability. This would be useful in evaluating the need and appropriate level for financial assistance.

In the consultant's view, micro-level monitoring is the more promising approach and such a system should be established as regular feature of AFA implementation. Projects, mainly on farm, are the focus of the AFA. Collecting and analyzing project level data on impacts and effects should be the major concern to establish hard evidence on which are good projects and which are not. By setting up a micro-monitoring system now, preliminary results for some projects could be available in about a year. The system will also provide a solid database consisting of real project data for analysis of impacts and effects in the final evaluation of the AFA.

Successful implementation of the recommended macro and micro level monitoring will require a specific commitment of resources to this activity. In the consultant's view, the designation of one or more staff persons, without AFA implementation responsibilities and fully dedicated to monitoring activities, is crucial to the success of this endeavour. (Such a resource commitment is also assumed in Recommendation 9.)

14. The consultant recommends the introduction of a uniform project tracking system in all regions.

Project slippage was identified as an important issue affecting the rate of spending and objectives achievement over the first three years of the AFA. For projects involving farmers, day to day monitoring from the application stage through implementation and the final report is best handled at the regional level. Keeping up to date on implementation progress and spotting project slippage early requires a system where critical dates are monitored regularly and systematically. Follow up action can then be taken on a timely basis and where necessary, funding for projects not meeting their implementation schedule can be terminated and reallocated to other uses. A project tracking sheet used in one region was cited in Figure 2-3. The consultant is aware of the use of a microcomputer to perform a similar task in a second region. Setting up a uniform tracking system using a spreadsheet program on a microcomputer in all regions would permit systematic project tracking across the province. If properly maintained, such a system would provide up to date detailed project implementation information for both the regions and the Implementation Directorate.

15. The consultant recommends the use of a low interest loan scheme as an alternative methods of providing assistance for those farmers wishing to undertake land development projects.

Generally, the benefits from land improvement and land development projects are fully realized only three to five years or more after the initial investment. For a proposed project under the Land initiative, farmers must raise their part of the cost either from current cash flow or by borrowing privately. For farmers with low income or in periods of low commodity prices, these options may not be feasible and farmer participation in land projects will be correspondingly low. Farmers may also initiate a project and then fail to follow through. This was a significant problem over the first three years of the AFA. To overcome this issue, the use of a low interest loan is suggested as an alternative method of providing financial assistance to land projects. Several features of such a scheme commend it for active consideration. Farmers interested in land improvement can undertake such work without the need for cash resources of their own. If the loan is arranged through commercial banks using an interest buy-down feature, AFA participation should assist the farmer's credit worthiness in the eyes of the bank. Furthermore, if t'.e scheme is appropriately designed, repayment of the loan can be scheduled to match the anticipated payoff from the land development/improvement work. According to the survey of clients and non-clients, 55 percent of the clients and almost one-half of the non-clients indicated

they would be willing to borrow to conduct land improvement activities on their farm. With such a base to start from a properly designed and marketed low-interest loan scheme appears to hold good promise for attracting a wide range of clients to the land initiative.

APPENDIX A

EXCERPTS FROM THE CANADA-NEW BRUNSWICK AGRI-FOOD DEVELOPMENT SUBSIDIARY AGREEMENT

Schedule "A"			
	Canada ($'000)	New Brunswick ($'000)	TOTAL ($'000)
1. Livestock Feed Development	12,100	2,200	14,300
2. Livestock Industry Development	3,400	1,400	4,800
3. Potato Industry Development	6,100	2,100	8,200
4. Horticulture & Specialty Crop Development	3,400	1,300	4,700
TOTAL	25,000	7,000	32,000

Source: NB AFA.

Table C-2					
	Land ($'000)	Marketing ($'000)	Technology ($'000)	HRISS ($'000)	TOTAL ($'000)
1. Livestock Feed Development	6,500	2,700	3,500	1,600	14,300
2. Livestock Industry Development	-	900	2,600	1,300	4,800
3. Potato Industry Development	4,500	1,400	1,000	1,300	8,200
4. Horticulture & Specialty Crop Development	1,500	1,000	1,400	800	4,700
TOTAL	12,500	6,000	8,500	5,000	32,000

Note: Total expenditures by Canada $25,000,000
Total expenditures by New Brunswick $7,000,000

Source: NB AFA, Schedule C.

APPENDIX B

CANADA-NEW BRUNSWICK AGRI-FOOD DEVELOPMENT SUBSIDIARY AGREEMENT OBJECTIVES

CANADA-NEW BRUNSWICK AGRI-FOOD DEVELOPMENT SUBSIDIARY AGREEMENT OBJECTIVES

2. Purpose, Objectives and Subject Matter

2.1 The purpose of this agreement is to enable Canada and New Brunswick to implement Directly Delivered and Cost-Shared Projects, to stimulate and support the development of the agri-food sector as described by the objectives stated in Subsection 2.2.

2.2 The objectives of this agreement are:

a) To identify, develop and realize domestic and export market opportunities for New Brunswick potatoes, livestock, livestock feeds, horticulture and specialty crops;

b) To encourage growth and development of the agri-food sector through the expansion of primary production and value-added activities for agricultural products with identified markets;

c) To enhance the competitive position of the agri-food industry through improvement in productivity,m product quality, human resource development, physical resource utilization and marketing;

d) To increase employment in the agri-food sector and related services; and,

e) To increase the level and stability of net returns of the participants in the agri-food sector.

APPENDIX C

RESULTS
CLIENT AND NON-CLIENT SURVEY

Agri-Food Sub-Agreement Mid-term Evaluation
Survey of Farmers (CLIENTS)

Duration of Interview:

CLIENT DATA: to be filled in by Interviewer

NAME:_____ CLIENT NUMBER: _____

TELEPHONE NUMBER: _____ REGION CODE: _____

****

(Are you the person most familiar with the farming operation? ASK IF NO: Who would be the person to contact? NAME _____ PHONE: _____)

1. I understand you prepared a Farm Business Development Plan as part of your application. Did you require any outside help in the preparation of your Plan?

YES - 65 — **IF YES: ASK 2**

NO - 35 — **IF NO: GO TO 3**

2. **IF YES IN 1. ASK**: Who helped you?

Farm Management Specialist..... 1
The Ag-Rep..... 61
Another farmer..... 0
Other (Please specify)
_____ 3

3. Have you found the Plan useful in your farming operations?

YES - 68 — **IF YES: ASK 4**

NO - 31 — **IF NO: GO TO 5**

4. **IF YES IN 3. ASK**: In what way was this Plan useful? (DO NOT READ LIST)

It set out the things to do on my farm..... 52
It allowed me to get government assistance..... 11
Some other way (Please specify)
_____ 5

5. **IF NO IN 3. ASK**: Why wasn't this Plan useful to you ?... (DO NOT READ LIST)

Not specific enough	7
Only gives projections, not a plan of action	2
I did it to get assistance	4
Some other reason (Please specify) _____	17

6. Do you remember the name of the government program or the Department that provided you with the funding for your project?

YES - 76 NO - 24

IF YES: ASK 7 **IF NO: ASK 9**

7. Would you tell me the name of the program or Department. (DO NOT READ LIST INITIALLY; MORE THAN ONE RESPONSE PERMITTED)

New Brunswick Department of Agriculture	17
Agriculture Canada	6
Agri-Food Development Agreement (AFA)	56
The E.R.D.A	0
The A.S.A. II	1
Other _____	2
Other _____	0

8. **Check if Prompted response** 44

9. Do you remember how you first found out that you could get money from the government for work on your farm? (READ LIST ONLY IF NECESSARY)

Heard about it from a friend or neighbour	10
Saw an ad in the newspaper	9
Someone from the Regional office told me	53
Someone with the Federation of Agriculture told me	0
Someone with a producer group told me	12
Some other source (Please Specify) _____	15

10. Under which program was the application made? (DO NOT READ LIST INITIALLY; MORE THAN ONE RESPONSE PERMITTED)

Livestock Feed Development	39
Livestock Industry Development	36
Potato Industry Development	10
Horticulture and Specialty Crop Development	15

11. What kind of project have you received funding for? (DO NOT READ LIST INITIALLY; **MORE THAN ONE RESPONSE PERMITTED**)

Land	76	***Go to 12***
Marketing	7	***Go to 13***
Technology	42	***Go to 14***
HRISS	2	***Go to 15***

12. **IF LAND PROJECT:** What were the TWO main factors that led you to undertake the project? (DO NOT READ LIST INITIALLY; PUT RANK 1 OR 2 IN PARENTHESES)

	1st	*2nd*
Availability of government assistance	7	10
Soil conservation	3	5
Expand production of existing crop	24	7
Reduce dependence on imported grain and feed	3	3
Cultivate new crops	3	4
Ability to work land earlier in season	2	3
Expectations of higher yields	12	5
Expectations of higher valued crops	0	2
Expectations of higher product quality	2	2
Increased efficiency	3	7
Consistency of supply	0	0
Improve financial performance	0	3
Other (Please Specify) _____	17	12

13. **IF MARKETING PROJECT:** What was the main factor that led you to undertake the project? (DO NOT READ LIST INITIALLY; PUT RANK 1 OR 2 IN PARENTHESES)

	1st	*2nd*
Availability of government assistance	2	0
Increase exposure of potential buyers	0	0
Increase product sales	0	2
Develop or expand new markets	0	0
Identify marketing opportunities	0	0
Improve marketing practices	0	0
Regain lost markets	0	0
Produce new crop	0	0
Improve financial performance	1	0
Other (Please Specify) _____	4	1

14. **IF TECHNOLOGY PROJECT:** What was the main factor that led you to undertake the project? (DO NOT READ LIST INITIALLY; PUT RANK 1 OR 2 IN PARENTHESES)

	1st	*2nd*
Availability of government assistance	5	5
Improve efficiency	24	7
Improve revenues	5	7
Develop or expand new markets	1	0
Other (Please Specify) _____	7	15

15. **IF HRISS PROJECT:** What was the main factor that led you to undertake the project? (DO NOT READ LIST INITIALLY; PUT RANK 1 OR 2 IN PARENTHESES)

	1st	*2nd*
Availability of government assistance	1	0
Improve management skills	1	0
Improve technical skills	0	0
Improve farm efficiency	0	1
Improve information system	0	0
Improve accessibility of information	0	0
Improve financial performance	0	0
Other (Please Specify) _____	0	1

ASK ALL RESPONDENTS

16. What do you see as the biggest changes that the program made to the way you run your farm or market your crops and livestock?

Allowed me to expand earlier	9
Improved management skills	0
Improve technical skills	7
Improved farm efficiency	45
No change	20
Other (Please Specify) _____	17

17. How satisfied are you with the amount of financial assistance you have received? Are you ...

Satisfied - 70 Neither satisfied or dissatisfied - 5 Dissatisfied - 25

18. How satisfied are you with the technical advice you received? Are you ...

Satisfied - 82 Neither satisfied or dissatisfied - 8 Dissatisfied - 10

These are the final set of questions. They'll take about 2 minutes of your time. I'm going to read you some statements concerning agriculture in New Brunswick. For each one, I'd like you to tell me whether you:

Strongly Agree	(1)
Agree	(2)
Are indifferent	(3)
Disagree or	(4)
Strongly Disagree	(5)

		Strongly Agree	*Agree*	*Are Indifferent*	*Disagree*	*Strongly Disagree*
19.	The agri-food programs are just another government giveaway program.	0	14	3	68	15
20.	Land improvement is a necessity if we want a healthly agricultural industry in New Brunswick.	44	53	2	0	0
21.	A farm business development plan isn't really that useful.	0	21	3	67	9
22.	It was easy for me to obtain technical advice when I needed it.	13	63	8	14	2
23.	It is easy to find people to work for me on my farm.	2	31	10	40	16
24.	I would be willing to borrow money in order to undertake land improvement work on my farm.	4	51	2	40	3
25.	The work I did with government funding will increase production from my land.	18	73	2	5	0
26.	The money I received under the Agri-Food programs allowed me to do things I wouldn't have done otherwise.	18	64	1	16	1
27.	I had to wait a long time to get my application for funding under the agri-food programs approved.	1	32	4	57	6
28.	I would not have undertaken the project if government assistance had not been available.	4	53	5	37	0

	Strongly Agree	*Agree*	*Are Indifferent*	*Disagree*	*Strongly Disagree*
29. The programs of the Agri-Food Development Agreement seem to be on the right track.	6	79	5	9	1
30. The application forms for funding from the government agri-food programs were easy to understand.	1	55	12	28	4
31. The funds of the agri-food program are spent carefully and without waste.	4	63	10	16	3
32. The Agreement will increase my level of confidence in the future of the agro-business industry.	7	72	7	9	3
33. Soil erosion is one of the most important problems facing New Brunswick agriculture.	11	56	4	29	0
34. On average, I would be willing to pay 66% of all costs of land improvement on my farm in the future.	3	47	6	43	1

THANK YOU VERY MUCH FOR YOUR TIME.

Agri-Food Sub Agreement Mid-Term Evaluation
Survey of Farmers (CLIENTS)
Comments

2. *Who helped you? (outside help in the preparation of your Farm Business Development Plan.) - Other*

- Friend
- Dairy specialist
- Greenhouse specialist

4. *In what way was this plan useful to you? Some other way:*

- For budgeting
- Looks at profitability versus expectations
- Good ideas from the Ag-Rep
- Provides info guide to compare with figures I get
- It got me on the mailing list for newsletters
- Gives long term goals

5. *Why wasn't this plan useful to you? Some other reason:*

- Did not follow it - 2
- Cannot follow projections
- Uses own version of plan
- Set up for land based farmers
- One never knows what one will be doing in 5 years - 6
- Had enough records of my own
- Too much paperwork
- Can't remember which specific plan
- Projections have all changed
- Too many questions

7. *Would you tell me the name of the program or Department? Other:*

- South East Sub Agreement

9. *Do you remember how you first found out that you could get money from the government for work on your farm? Some other source:*

- Cannot remember, not sure - 4
- Letter from the Dept. of Agriculture
- Dairy Specialist
- Radio reports
- Respondent is a commissioner for the Dept. of Agriculture
- Victoria Soil Improvement Assoc.
- Minister of Agriculture
- Federal Gov't sent him to provincial regional office
- Circular letter, gov't publications
- N.B. Milk Marketing Board newsletter

12. ***LAND*** *What were the TWO main factors that led you to undertake the project?*
Other:

- Needed more land (1) 3, (2) 2
- Wanted to clear land for fire break and future barn (1)
- Drainage (1) 5, (2) 4
- Like to see land developed (2) 2
- I wanted to begin to farm (1)
- To get workable land closer to the farm (1) 2, (2) 1
- Respect for his neighbours (pork farmer) (1)
- Help from engineers for technical assistance (2)
- Use own land (1)
- Improve land base (2)
- Job needed to be done (1)

13. ***MARKETING*** *What was the main factor that led you to undertake the project?*
Other:

- Consolidate his fields (2)
- Better quality hay (1)
- To overcome weather problems (2)
- To make a living at buying and selling grain (1)
- Keep potatoes to sell later at market (1)

14. ***TECHNOLOGY*** *What was the main factor that led you to undertake the project?*
Other:

- Improve herd (1)
- Better quality feed (1) 2
- Expand production (2) 3
- Help from agronomist (1)
- New pelting technology (1)
- Technical helps (2)
- Increase storage (2)
- Improve quality (2)
- Self-sufficiency (1)
- Improved product (2)
- Harvest potatoes sooner (2)
- Decrease labour (2)
- Wanted to replace hand method with automatic watering system (fox farmer) (2)
- Needed to be done (1)
- Speed up haying (1)

15. ***HRISS*** *What was the main factor that led you to undertake the project? Other:*

- To be able to keep grain (1) 1, (2) 1
- To prevent spoilage of grain (2)

16. *What do you see as the biggest changes that the program made to the way you run your farm or market your crops and livestock? Other:*

- Slightly increased acreage
- Improve quality
- Improve soil quality
- Improve financially
- Work land closer
- Grounds in better condition
- Got me into planting an expensive crop
- Get more use out of the land to grow crops I couldn't grow before and start earlier
- Able to produce lambs throughout the year
- Don't have to lease as much land
- Starting haying much earlier
- Improved communications
- Increased production - 2
- More active in assoc.

Comments Related to Questions 19 to 34:

- Respondent felt there was too much red tape involved with the Agri-Food Development Agreement
- Respondent felt AFA has done nothing for poultry farmers
- Respondent would be willing to borrow to undertake land improvement work if he could obtain a long term low interest land development loan
- Respondent satisfied with the amount of financial assistance received but bothered that neighbours got more and were more competative
- Respondent feels drainage and pasture maintenance are most important problems facing N.B. agriculture today
- Respondent feels 2-year business development plan would be better
- Respondent would like a soil tester available through the government
- Respondent feels hay binds were announced too late
- Respondent was dissatisfied with the technical advice he received - he received no advice for his fox farming
- Respondent feels a need for controlled pricing for potatoes
- Respondent feels the program is too severe, try to tell the farmer too much, need soil sample and lime application to get subsidy
- Respondent feels a building subsidy is also needed

Agri-Food Sub-Agreement Mid-Term Evaluation
Survey of Farmers (NON-CLIENTS)

Duration of Interview:

CLIENT DATA: to be filled in by Interviewer

NAME:_____

TELEPHONE NUMBER: _____ REGION CODE: _____

****

(Are you the person most familiar with the farming operation? IF NO, ASK: Who would be the person to contact? NAME _____ PHONE: _____)

1. Have you had a Farm Business Development Plan prepared for your farm?

YES - 22 **IF YES: ASK 2** NO - 78 **IF NO: ASK 5**

2. Have you found the Plan useful in your farming operations?

YES - 15 **IF YES: ASK 3** NO - 7 **IF NO: GO TO 4**

3. **IF YES IN 2. ASK**: In what way was this Plan useful? (DO NOT READ LIST)

It set out the things to do on my farm..... 10
It allowed me to get government assistance..... 5
Some other way (Please specify)
_____ 0

4. **IF NO IN 2. ASK**: Why wasn't this Plan useful to you ?... (DO NOT READ LIST)

Not specific enough..... 0
Only gives projections, not a plan of action..... 0
I did not apply for assistance..... 1
Some other reason (Please specify)
_____ 7

5. Did you know that the government provides money to farmers for land improvement, marketing and other development projects?

YES - 92 — **IF YES: ASK 6**

NO - 8 — **IF NO: GO TO 10**

6. Do you remember how you first found out that you could get money from the government for work on your farm? (READ LIST ONLY IF NECESSARY)

Heard about it from a friend or neighbour	20
Saw an ad in the newspaper	9
Someone from the Regional office told me	40
Someone with the Federation of Agriculture told me	3
Someone with a producer group told me	3
Some other source (Please Specify) _____	13

7. Would you tell me the name of the program or Department. (DO NOT READ LIST INITIALLY; MORE THAN ONE RESPONSE PERMITTED)

New Brunswick Department of Agriculture	42
Agriculture Canada	9
Agri-Food Development Agreement (AFA)	19
The E.R.D.A.	1
The A.S.A. II	0
Other _____	24
Other _____	0

8. **Check if Prompted response** 46

9. Why haven't you applied for assistance? (DO NOT READ LIST)

The programs do not meet my needs	10
I can't afford it	12
Low commodity prices	0
I don't like to receive government assistance	9
Some other reason (Please Specify) _____	59

ASK ALL RESPONDENTS

These following set of questions will take about 2 minutes of your time. I'm going to read you some statements concerning agriculture in New Brunswick. For each one, I'd like you to tell me whether you:

Strongly Agree	(1)
Agree	(2)
Are indifferent	(3)
Disagree or	(4)
Strongly Disagree	(5)

		Strongly Agree	*Agree*	*Are Indifferent*	*Disagree*	*Strongly Disagree*
10.	The agri-food programs are just another government giveaway program.	1	18	22	54	3
11.	Land improvement is a necessity if we want a healthly agricultural industry in New Brunswick.	19	77	0	4	0
12.	A farm business development plan isn't really that useful.	2	17	19	53	6
13.	It is easy to find people to work for me on my farm.	1	25	5	60	8
14.	I would be willing to borrow money in order to undertake land improvement work on my farm.	2	46	3	47	2
15.	I would have undertaken a project if greater government assistance had been available.	2	56	4	37	1
16.	The programs of the Agri-Food Development Agreement seem to be on the right track.	2	64	25	8	0
17.	The funds of the agri-food program are spent carefully and without waste.	2	46	32	16	2
18.	The Agreement will increase my level of condidence in the future of the agro-business industry.	4	58	19	18	0
19.	Soil erosion is one of the most important problem facing New Brunswick agriculture.	7	66	5	22	0
20.	On average, I would be willing to pay 66% of all costs of land improvement on my farm in the future.	0	64	7	28	1

Finally, I'd like to ask you some questions concerning your farming operation. I can assure you that this information will remain confidential.

21. What is the size of your farm? (DO NOT READ LIST)

0-2 acres	1
3-9 acres	0
10-69 acres	11
70-129 acres	17
130-199 acres	14
200-399 acres	31
400-999 acres	19
Over 1000 acres	5

22. How many years of experience as a farmer do you have? (DO NOT READ LIST)

0-5 years	4
6-10 years	9
11-15 years	7
16-25 years	22
26-35 years	14
Over 35 years	44

23. What is the MAJOR commodity produced on your farm? (DO NOT READ LIST)

Dairy	24
Grain	8
Forage	0
Fruit crops	9
Vegetable crops	27
Poultry	1
Beef	22
Swine	3
Sheep	0
Fur bearing animals	1
Ornamentals	2
Other (Please Specify)_____	3

24. For what percent of your gross farm income did this commodity account for in 1986?

0-50 %	23
51-75 %	21
76-85 %	16
86-95 %	14
96-100 %	24

25. What other commodities do you produce? (DO NOT READ LIST, MORE THAN ONE ANSWER PERMITTED)

Dairy	5
Grain	26
Forage	6
Fruit crops	5
Vegetable crops	10
Poultry	1
Beef	25
Swine	2
Sheep	2
Fur bearing animals	1
Ornamentals	0
Other (Please Specify)_____	24

26. What is the business structure of your farm? Is it a ...

Sole Proprietorship	79
Partnership	18
Corporation	3
Other (Please Specify)_____	0

27. In which of the following ranges did the gross income of your farm operation fall in 1986? (READ LIST)

$0	6
$1 - $4,999	17
$5,000 - $9,999	9
$10,000 - $24,999	11
$25,000 - $49,999.	15
$50,000 - $99,999	17
$100,000 - $149,999	14
Over $150,000	8

THANK YOU VERY MUCH FOR YOUR TIME.

Agri-Food Sub Agreement Mid-Term Evaluation
Survey of Farmers (NON-CLIENTS)
Comments

4. *Why wasn't this plan useful to you? Some other reason:*

- Markets changed
- Only a small farm
- Markets can't be predicted for 5 years - 3
- Too soon to tell - 2

6. *Do you remember how you first found out that you could get money from the government for work on your farm? Some other source:*

- Can't remember - 7
- In the mail - 2
- Marsh Committees
- Took partin AFA 1 - 2
- Contractor

7. *Would you tell me the name of the government program or Department? Other:*

- Doesn't know - 24

9. *Why haven't you applied for assistance? Some other reason:*

- A small operator, not as active - future - expand and look into it
- Was refused last year - 3
- Got lime assistance
- Illness
- Have applied and are waiting to hear - 6
- Have applied and been approved - 9
- Going to soon - 4
- Don't know - 2
- Can't be bothered - too old - 11
- Not enough time - 3
- Don't know whether big enough
- Applied last fall - waited so long for lime assistance that winter came
- Involved in last agreement and found there was too much red tape
- Not undertaking any changes or improvements - 3
- Unaware of the specifics of programs - 2
- Too much red tape - 7
- Forms sent back
- Doesn't want gov't to control - 2
- Didn't need it
- Can't get because according to them I don't make my full living at farming
- Only just started farming
- Did ditching last year, need nothing this year

23. *What is the MAJOR commodity produced on your farm? Other:*

- Christmas trees, lumber, wood - 6
- Tobacco

25. *What other commodities do you produce? Other:*

- Christmas Trees, wood, lumber - 13
- Services like hay cutting
- Race horses

26. *What is the business structure of your farm? Other:*

Comments:

- Respondent feels there is a need for alot of planning and research into developing better land, uses and protection methods - need economical methods for improving land quality
- Respondent feels the Agreement a definite asset to farmers both large and small, Farming a necessary occupation even though not an attractive one, small farms need help like this, a need to help serious farmers, would like to see program to assist with the purchase of expensive equipment
- Respondent feels that farming would be done for if U.S. market (for potatoes) was lost, Our federal inspectors do not stand up for us when grading is turned down in U.S., there are some good programs but need to put more into areas of soil erosion and marketing assistance
- Respondent doesn't agree with approach taken by agreement, grants are a temporary cure for economic stress, Commodities should have fixed prices so free enterprise can go from there
- Respondent feels the agreement should apply to equipment - 2
- Respondent would like to see a little better price for what sell and buy
- Respondent spent a fair amount of money on 1st agreement, has to finish paying it back before can take advantage of this agreement
- Respondent feels it is hard to get assistance for equipment, pay 5% more for financing with the government than from other sources
- Respondent feels anything to help farmers is good, need to promote marketing boards and soil erosion prevention, need for more agricultural training in the education system
- Respondent feels grants hurt farmers by getting them into debt, if can't make it without assistance shouldn't be farming
- Respondent feels needs more education re where to go for assistance, how to fill out applications, tax deductions etc.
- Respondent likes Farm Plan; before couldn't get ahead, not educated enough about farming; with plan, able to set priorities and make a good living
- Respondent feels it is good to help farmers clear the land
- Respondent feels farmers should pay their own way; Gov't only provides assistance to the big fellows
- Respondent feels farmers would be all right if products would sell at a reasonable price
- Respondent took part in AFA 1; farmers have to change products to compete in changing markets, assistance should cover all aspects of markets not just some as as now the case; had soil work done but disagreed with layout as specified by engineers, a 5% decrease in crop so took it out; too much red tape to get assistance

- Respondent feels some farmers get into these programs and end up in debt when they could have got along without them; farmers need more education re financing; need a program for farmers in trouble which forgives interest charges
- Respondent feels the program is only good for rich people because farmer has to have the money up front and must wait up to 6 months to receive grant back
- Respondent doesn't believe in people getting something for nothing
- Respondent feels the programs are geared to big farms; programs are done their way and not the way respondent wants; there should be a sub-section of the agreement dealing with the family farm
- Respondent feels land development is the key; these programs involve too much red tape; many farmers can't afford to get involved with these programs regardless of the % of pay back because they don't get full value for their product; can only justify a pay back if farmers get what product is worth
- Respondent had many views: Too much paperwork, farmers don't have time for it, need assistance when the timing is right for use; good farmers are penalized - he has kept Ph of soil up over the years and so didn't need lime assistance, then other farmers get assistance to do what he was doing all along and go out and compete with him in the marketplace; grants benefit farmers who deplete the farms to the detriment of farmers who keep up their land, gov't is helping farmers who don't help themselves

APPENDIX D

AFA MID-TERM EVALUATION SURVEY
COMPARISON OF CLIENTS AND NON-CLIENTS
BY FARM AND PERSONAL CHARACTERISTICS

Farm Size		
	Clients	Non-Clients
0-2 acres	15	1
3-9 acres	0	0
10-69 acres	13	11
70-129 acres	4	17
130-199 acres	12	14
200-399 acres	24	31
400-999 acres	27	19
≥1000 acres	5	5
Total	100	98

Major Commodity Produced		
	Clients	Non-Clients
Dairy	35	24
Grain	1	8
Forage	0	0
Fruit Crops	5	9
Vegetable Crops	15	27
Poultry	2	1
Beef	16	22
Swine	5	3
Sheep	4	0
Fur Bearing Animals	2	1
Ornamentals	0	2
Other	6	3
Total	91	100

Percent of Gross Farm Income for which Major Commodity Accounted		
	Clients	Non-Clients
0-50%	16	23
51-75%	7	21
76-85%	8	16
86-95%	23	14
96-100%	46	24
Total	100	98

Business Structure		
	Clients	Non-Clients
Sole Proprietorship	54	79
Partnership	17	18
Corporation	19	3
Other	9	0
Total	99	100

Gross Income (1986)		
	Clients	Non-Clients
$0	16	6
$1-$4,999	11	17
$5,000- $9,999	3	9
$10,000-$24,999	8	11
$25,000-$49,999	8	15
$50,000-$99,999	9	17
$100,000-$149,999	12	14
≥$150,000	33	8
Total	100	97

Estimated French/English Breakdown		
	Clients	Non-Clients
English	75	83
French	25	17
Total	100	100

Type of Programs Utilized		
	Clients	Non-Clients
Land	46	n/a
Marketing	22	n/a
Technology	25	n/a
HRISS	27	n/a
Total	120	n/a
Note: Clients can use more than one Program		

Region		
	Clients	Non-Clients
Bathurst	7	12
Chatham	7	6
Florenceville	20	26
Fredericton	17	13
Grand Falls	7	10
Moncton	22	14
Sussex	20	19
Total	100	100

Years of Experience		
	Clients	Non-Clients
0-5 years	n/a	4
6-10 years	n/a	7
11-15 years	n/a	9
16-25 years	n/a	22
26-35 years	n/a	14
over 35 years	n/a	44
Total	n/a	100

APPENDIX E

LIST OF INTERVIEWEES

LIST OF INTERVIEWEES

Agriculture Canada

Louis-Philippe Albert
John Brown
Marc André Chiasson
Rénald Cormier
Elliott Keizer
Bernard Mallet
Mike McCormick
Randall McGregor
Jim Nicholson
Bill Pryor

New Brunswick Department of Agriculture

Lionel Arsenault
Roland Bernard
Bob Colpitts
Nancy Cook
Andrew Curry
Bill Durant
Brian Dykeman
Aurele Gaudet
Abe Ghanem
Mike Healy
Joe Herod
Frank Johnson
Peter Jones
Jacques Lavoie
Serge Michaud
Ted Pratt
Don Ramey
Mike Routledge
Peter Schousboe
Chesley Smith
Vernon Taylor
Roger Tremblay
Brian Trenholm

Other

Ross MacLeod, DRIE
K.Scott, CIC

Producers

Jim Banks
Hugh Dickson
Theodore Fowlie
Warren Frazee
Robert Green
Roger Kaye
Charles Kelly
Gerry Lutes
Mr. Marinus de Groot
Douglas McLaughlin
Murray Reid
George Truman
Normande Turgeon
Donald Weston